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THE

WESTMINSTER HOSPITAL REPORTS.

THE

WESTMINSTER HOSPITAL REPORTS.

EDITED BY

R. G. HEBB, M.A., M.D., F.R.C.P.

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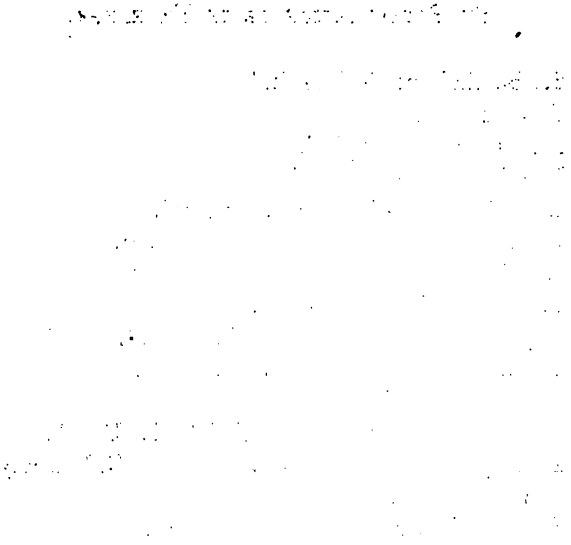

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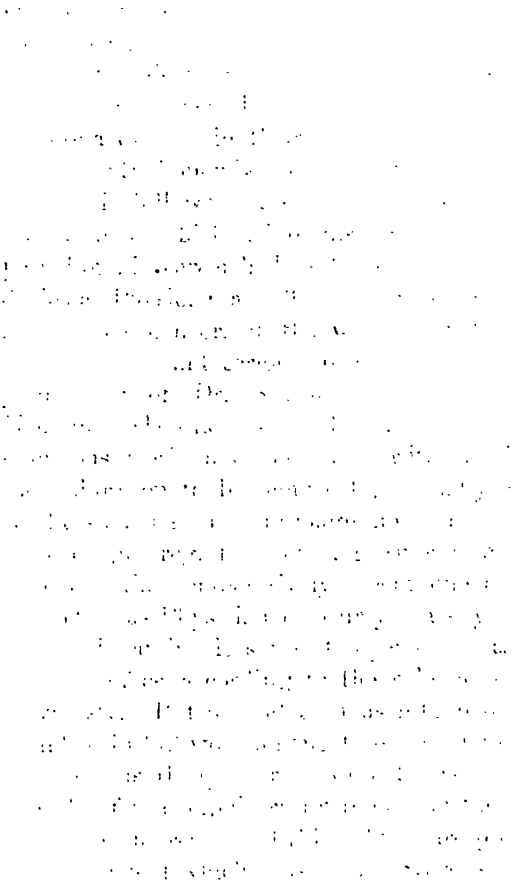
BABBANO, PHOTO.

Octavius Sturges



In Memoriam.

OCTAVIUS STURGES.

BORN 1833. DIED 1894.

IT was with a sense of deep sorrow and irreparable loss that all Westminster Hospital men heard the recent news of the unexpected death of our Senior Physician. Never, probably, have those connected with the Institution had equal cause to deplore a vacancy in their ranks, for Dr. Sturges was not yet an "emeritus" member of the staff of either Hospital or School. He was in full work and enjoyment of life when he met with the accident which led to his death a week later, and at no period of his career had he been more earnestly devoted to his duties as Physician and Teacher or taken a more active interest in all that concerned the welfare of the Students and the School. Sad and serious as was the loss of Dr. Anstie, the predecessor of Dr. Sturges as Physician and Lecturer on Medicine, who likewise died almost suddenly in the midst of strenuous work, his connection with the Hospital was of too short duration to be mourned personally by many generations of old students; and although no death among our staff has been deeply regretted by a greater number of Westminster men than the comparatively recent one of Dr. Fincham, who was active as Physician for thirty years, yet the grief felt by us as a body at his loss was tempered by the fact that he had resigned office, according to the rule of seniority, seven years previously. But we had all reason to believe that Dr. Sturges would be in full work amongst us for four years more, and thus complete his thirty years of valued service to the Hospital and School before compulsory retirement at the age of sixty-five.

Most of the readers of this volume are probably already aware of the accident which caused Dr. Sturges' death. Suffice it to

say that eight days previously he was knocked down in Cavendish Square by a hansom cab the approach of which he failed to hear, being somewhat deaf. No injury other than external bruising was detected, but he soon began to suffer from great intestinal distension. On the day of his death this was excessive, breathing grew difficult, and the end came, after a few hours' collapse, with frequent pulse and falling temperature. A post-mortem examination revealing no traumatic lesion, death was attributed to nervous shock and the failure of a feeble and dilated heart.

For the following account of his parentage and early life I am greatly indebted to the kindness of his brother, the Rev. Edward Sturges, Rector of Wokingham. Octavius Sturges was the eighth son and twelfth child of John and Elizabeth Sturges, and was born in Connaught Square, at that time the only one of those many squares now stretching westward in Paddington parish. His father was a merchant, who spent much of his leisure time in learned and scientific pursuits and was an industrious student of history and general literature. Although he never published anything, extant specimens of his writing show a style of great dignity, accuracy, and clearness which is remarkably kindred with that of his son Octavius. In another striking way the father's tastes prefigured those of the son. Medical work and medical men had a very special interest for him, and he not only carefully studied surgical books, but also was in the habit of frequently witnessing operations in hospital theatres. He attended, too, some of the lectures of Sir Astley Cooper, whose skill and abilities he greatly admired.

Octavius as a child told his family that he "meant to be a soldier and go to India," and he clung to this decision throughout his school-boy days. His father obtained for him a nomination in the East India Company's Military College at Addiscombe, whither, after some years spent at King's College School, he went in 1850, at the age of 17. In 1852 he finished his course there, coming out fifth in his term, and gaining a commission as lieutenant in the Bombay Artillery.

Although the thought of joining the medical profession had not at this time entered his mind, surgery had the same peculiar attraction for him that it had for his father, and he showed his interest therein in much the same way. He obtained admission

to the Operating Theatre of King's College Hospital, and often, when he had leave from Addiscombe for a Sunday at home, he would stop on his way through London on Saturdays to see the operations at the Hospital.

After two years in India he became ill while stationed at Poona. He was there told that he had aneurysm of the aorta, and was warned that he might die at any moment, and, very probably, in his sleep. "Of a retiring disposition," says his brother, "timid in approaching his fellows, sensitive and affectionate, among strangers in a foreign land, his heart full of home, and all hope of seeing home again taken from him, he lived under this sentence of death for some months. It was a searching experience, and left its mark on his character for the rest of his life. Somewhat harshly, as it seems, he was refused leave to return to England on the ground that he would not thereby be likely to prolong his life." His station, however, was soon afterwards changed to Aden, when, after a short period of heavy work, some days sixteen hours at a time in the saddle, fresh arrivals for the military Staff enabled him to obtain furlough, and he reached his home in Connaught Square a few weeks before the outbreak of the Indian Mutiny in 1857. After visiting several London physicians he came under the observation of the late Dr. Walshe, who pronounced that there was no aneurysm, but dilation of the heart, probably attributable to the Indian climate; forbad his return to India; but gave hopes that with care he might live for long. One year's leave of absence was given him, and then, knowing that his return to India was uncertain and not wishing to be idle, he entered at Emmanuel College, Cambridge, in July, 1858, being then about 25 years old, with the intention of taking his degree if time allowed. At the end of the year's leave he was pronounced unfit to return to India and was granted leave for another year, but with characteristic honesty he said that if he could not do his work he would not take the pay, and resigned his commission without availing himself of the then prevalent custom of selling the step to fellow officers who would be advanced by his promotion. Shortly after this, following his early inclinations and the advice of his nephew, Dr. W. Howship Dickinson, then beginning his distinguished professional career, Sturges entered at St. George's Hospital. He took his B.A. degree in 1861, his

M.B. degree in 1862, and was appointed Medical Registrar to St. George's in 1863. His early love for surgery began then to give place to a still deeper interest in medicine, in which department he found a more congenial field for his powers of observation and philosophic reasoning. In 1863 he became Member of the College of Physicians, in 1867 M.D. of Cambridge, and in 1868 was appointed Assistant Physician to Westminster Hospital and Lecturer on Forensic Medicine in the Medical School. In 1870 he was elected Fellow of the College of Physicians. From 1871 to 1874 he lectured on materia medica at Westminster. In 1873 he became Assistant Physician to the Hospital for Sick Children in Great Ormond Street, and in 1874 was appointed to the Chair of Medicine at Westminster, succeeding his friend the late Dr. Anstie. In conjunction first with Dr. Fincham and afterwards with Dr. Allchin he continued to lecture on medicine for 20 years, resigning the office only the year before he died. In 1875 he became Full Physician to Westminster Hospital, and in 1884 Full Physician to Great Ormond Street Hospital.

In 1891 he was Censor at the College of Physicians, and in the summer of 1894 was appointed Senior Censor, which office he was holding when he died. He frequently examined in medicine at the University of Cambridge, and had recently been Assessor to the Regius Professor of Physic. At the Westminster Hospital Medical School he filled the office of Dean for some years during the earlier period of his career there, and was Treasurer of the School at the time of his death.

It is not my purpose, writing here for sympathetic readers most of whom have been well acquainted with the subject of this memoir, to attempt an adequate account of Dr. Sturges as a man, a physician, or a medical author, or a full estimate of the work he has left behind him. Indeed, were this the place for such an attempt, the difficulty of carrying it out within a limited number of pages would be great, and I am further conscious that, even if I felt myself fit for the task, my general accord with him in matters, medical and otherwise, might tend to render such criticism of little value. I shall therefore confine myself to a short record of the chief characteristics which marked his life and work, and a brief notice of his principal writings.

He was a man of great modesty of mind and manner, and a hater of self-assertion of all kinds, professional and social. Yet in case of need and in defence of what he thought to be right he was never reluctant to take his part in any important contest. Love of truth in scorn of consequence was prominent in all his words and ways. A man of more impersonal motives in all he did I never knew. Breadth of view on all subjects and thoughtful toleration of opinion and actions with which he was not in accord were among his prominent characteristics. Religious in mind and habit, he was untainted by prejudice and always charitable in his judgment of others; and whole-hearted liberal as he was in politics, to a degree which even in these days might be called advanced, he could never be accused by opponents of unreasoning hostility or blind adherence to party.

Dr. Sturges had a pre-eminently philosophic mind, and was, in the true sense of the term, a sceptical physician; never following uncritically in the lead of others, or echoing a new and popular cry just because it was new and popular. With many he had the reputation of being an unbeliever in drugs. Those, however, who attended his practice, knew that he in no way neglected this department of treatment, although he recognised that in many cases of disease the remedies called by this name were of subordinate value and often useless or harmful. It may be that in some instances he was too unready to accept new remedies of rapidly acquired yet seemingly well-accredited reputation; but it must be remembered that the charge of being an unbeliever in drugs is often brought against those who merely refuse to regard therapeutics and pharmacology as almost equal in scope. The care and conscientiousness of his work in the wards was shown not only in the painstaking way in which he arrived at a diagnosis, but also in the trouble he bestowed on the treatment of each individual patient, and his anxiety to afford all possible relief. He was uniformly kind and considerate, and his popularity with the patients and officials of the Hospital was as great as it was well deserved. He endeared himself especially to children, and had a singularly great influence over them, which greatly contributed to his successful treatment of many cases.

In all that he undertook Dr. Sturges was thoroughly in

earnest. He never spoke or wrote unless he had something to say, and when he wrote he put his whole strength into the work. The same thoroughness was shown in the performance of any official duties which fell to his lot. This quality of earnestness and the no less valuable faculty of forming clear judgments on important matters, unbiassed by personal motives, were recognised not only by his intimate friends but also by all others with whom he worked, and were much appreciated at the College of Physicians, especially during his term of office as Senior Censor. He was a staunch friend and a most delightful companion to those who knew him well. He was full of information on many matters, and given to wide and various reading. Added to this he had a never-failing spring of humour. There were few topics of general conversation, few occurrences of any kind, out of which he could not strike sparks, and he had a rare gift of spontaneously witty expression. This was even more noticeable and enjoyable in a *tête-a-tête* conversation than in his well-known speeches on public occasions, which were always looked forward to and heard with delight by his colleagues and pupils alike.

His great interest in the School and Students was widely appreciated, and will ever be remembered. He was one of the first and most prominent supporters and promoters of these Reports, and contributed articles of practical value to six out of the eight volumes which have appeared before this. At the time of his death he was, with Dr. Hebb and Mr. Stonham, on the Committee of Publication of the Reports. When the Guthrie Society was formed he showed the liveliest interest in its work, and was elected as President for the first and second years of its existence. During the period of his office he scarcely missed a meeting, and was a very frequent attendant in subsequent years. By the voice of the Students he was again recently called to the chair; but he thought it better to decline to serve at that moment, while expressing his willingness to do so in the future and his continued interest in the Society.

Dr. Sturges, as I have said, never wrote unless he had something to say. For a man of this stamp the writings he has left behind him may be called numerous. Many interesting and valuable papers and lectures lie more or less hidden in the files of the medical journals. His introductory lecture to the first

course on materia medica delivered by him at Westminster in the summer of 1871 and published in one of the journals at the time I well remember reading with the liveliest pleasure. I have, indeed, especial cause to remember it, for my reading of it led to my first acquaintance with its author a few years later, and to my application for the position of one of his colleagues. His "Introduction to the Study of Clinical Medicine" is a work of small compass, but one of very great excellence. Being a real introduction, and not a compendium for the purpose of examination, this book is now, I believe, but little known; but it in no way deserves the quasi-oblivion it has met with. It would be read with peculiar and enduring profit by all good Students at the outset of their clinical work.

Dr. Sturges' work on "Chorea" is very widely known, and forms one of his chief titles to permanent medico-literary fame. It is the opinion of Dr. Wilks and others well qualified to judge that it is the best work on this always interesting subject. Appearing first in the shape of lectures delivered at Great Ormond Street Hospital, and again as a larger work in 1881, the final form of the book, including the author's later views on the nature of endocarditis in chorea, was published in 1893. In this work the accurate and laborious observation, the philosophic breadth of view, the logical acumen, the fairness of argument, and the rare excellence and purity of literary style which mark all Sturges' work are very brightly illustrated.

Nothing less can be said about his other important book, which deals with "Pneumonia." As a monograph it must have the highest permanent value, whether or no the comparatively recent teaching embodied in the last edition regarding the bacteriology of the disease or diseases known as pneumonia may be ultimately confirmed, or may need the revision of future experience and research. This book is full of historical and clinical information and able and searching criticism, and is so attractively written as to be of the deepest interest from beginning to end. Almost the latest work of Dr. Sturges was the composition and delivery of the Lumleian Lectures at the College of Physicians last year on "Heart Disease in Childhood," and his latest work of all was the preparation for the press of a volume containing these lectures. This book will soon be published under the editorship of Dr. W. H. Dickinson.

The lectures are based on original clinical and pathological research, and are unquestionably of great value as a solid and fresh contribution to clinical medicine.

The death of a man of Sturges' stamp is a heavy loss to any society or to any profession. For integrity, intellect, refinement, culture and personal charm combined, his equals are far to seek. The medical world will long miss him. He will live still longer in the memory of those who knew him well, for to know him was to love him.

H. B. DONKIN.

P.S.—When writing this memoir I inadvertently omitted mention of a book of which Dr. Sturges was the chief author. It is a story of Addiscombe and military life in India at the time of the Mutiny, of great general interest, and surely of special interest to all who knew Sturges. The book, entitled "In the Company's Service," was written in collaboration with his niece, Miss Mary Sturges, and published anonymously in 1888 by Messrs. Allen & Co., of 13, Waterloo Place. Sturges was wont to call it the work of his niece; but Miss Sturges tells me that her uncle had far the largest share in its production. It is certainly hall-marked with the Sturges' style. In the recent work by Col. Vibart, R.E., on "Addiscombe, its Heroes and Men of Note," this book is largely quoted from and referred to as being written "by an old Addiscombe cadet who has since obtained great reputation in the medical profession."

In Memoriam.

BARNARD WIGHT HOLT.

By GEORGE COWELL.

THE name of Mr. Barnard Holt has been identified with Westminster Hospital and Westminster for many years, and it is with great regret that we record his departure from among us. It is true that it is twenty-one years since he took any part in the active work of the Hospital, but as Consulting Surgeon his name continued until his death to stand in the forefront of the surgical staff.

Mr. Holt's illness dates from some two years ago, when he was attacked with influenza, then so prevalent. The devitalising effects of this disease he was utterly unable to throw off. He had repeated relapses, each one of which left him weaker and more unnerved, and the rapidity with which he aged showed that he could not long survive. An impacted calculus in the ureter caused him much suffering in the last week or two of his life, and he died on the 27th of February, in his 78th year, at his house in Savile Row, where he had resided since the death of Sir Benjamin Brodie.

Barnard Wight Holt was born in Westminster on November 27th, 1816. He was descended from a race of local doctors, as his father, his grandfather, and great grandfather were all in succession general practitioners in Westminster. In 1835 or 1836 he became the pupil of Mr. Anthony White, one of the ablest surgeons that Westminster Hospital has possessed. He became M.R.C.S. in 1839, and F.R.C.S. by examination in 1847. Soon after obtaining his membership of the College he was elected House Surgeon for twelve months, at a period when House Surgeons had to pay £100 for this appointment; and as there was considerable competition for the honour and advantage of

holding it the fee was sometimes, as in Mr. Holt's case, paid early in the student's career, and the post thus rendered secure.

Mr. Holt soon after started in practice, and his first appointment was that of Surgeon to the South London Dispensary. In 1846, on the retirement of Mr. Anthony White, and the appointment of Mr. Benjamin Phillips to the post of Surgeon, Mr. Holt was elected an Assistant Surgeon to the Westminster Hospital. He was soon after elected Demonstrator of Anatomy in the School, first with Mr. Erichsen and then with Mr. Pennell as Lecturer. Mr. Holt became one of the Principal Surgeons on the resignation of Mr. Hale Thompson in February, 1850, a post which he continued to hold until 1873, when he retired and was elected a Consulting Surgeon. Mr. Holt held also for a few years the post of Lecturer on Surgery in the Medical School.

Mr. Holt married in 1844, and leaves two sons and one daughter.

Other appointments held by Mr. Holt included: 1. The post of Surgeon to the Royal Society of Musicians, to which he was elected in 1846; 2. The post of Medical Officer of Health for Westminster; and 3. The office of Surgical Adviser to the Railway Passengers' Assurance Company. All three of these appointments he held till the time of his death, and in spite of his illness, he may be said to have died in harness, for his last operation was performed only about a fortnight before his death.

Mr. Holt was elected a member of the Council of the Royal College of Surgeons in 1872.

Mr. Barnard Holt was a particularly able surgeon and operator, and belonged to the old school of teachers who preferred to cultivate the industry and powers of observation of his pupils, instead of tabulating their work for them and cramming them for their examinations, as if that was the great object of medical education. In surgery he will be best remembered for his work in connection with stricture of the urethra, a malady for the successful treatment of which Westminster Hospital has for nearly a century had a great reputation with the public. His method was the mechanical and immediate dilatation of the stricture by means of an ingenious dilator of his own designing, and for a time was widely adopted by

surgeons. It was superseded by other and less heroic methods, such as internal urethrotomy and gradual dilatation by graduated instruments, and Mr. Holt's dilator has fallen completely into disuse. Westminster Hospital still continues to treat many most difficult cases of stricture, and for some time amongst the cases that presented the greatest difficulty were those that had been treated by immediate dilatation, and had afterwards neglected, as is so usual amongst hospital patients, to present themselves until retention had again supervened.

Mr. Holt also invented a winged self-retaining elastic catheter, an instrument which has also fallen into disuse, as the wings made it difficult of introduction, and were liable to incrustations unless frequently changed. Mr. Holt brought on one occasion before one of the societies a case of popliteal aneurysm which had been cured by digital compression of the femoral. For this purpose the patient, a young man, had been kept for over twenty hours under the influence more or less of chloroform as the compression could not be borne without it.

To mention another professional excellence of Mr. Holt. He was a bold, fearless, and determined witness, a quality which often brought him into requisition in the Law Courts.

Mr. Holt for many years enjoyed a large and lucrative practice. Outside his profession he was best known as possessing an excellent knowledge of horses, and was able to make this knowledge a means of materially adding to his income. He was an expert rider, and up to a year or two of his death it was said of him that no man of his age rode better or straighter to hounds, a pastime to which he was very partial. No man enjoyed life more fully than Mr. Holt, and his genial disposition, his energy and force of character, and his great cleverness in the subjects that interested him, gained for him in no small measure the esteem and admiration of a large circle of friends.

In Memoriam.

W. H. ALISOUN TEBBS.

By S. A. BULL, H.P.

In looking round among the ranks of old Westminster men, we miss a well-known face.

One of the most brilliant students that ever entered at our Hospital, the late W. H. Alisoun Tebbs, had worked hard all his life, and he passed away, to a great extent the victim of overwork, before he could enjoy the honours that he had gained.

The eldest son of the late Rev. William Tebbs, he was born at Banbury, in Oxfordshire, on April 29th, 1868, and commenced his education at a preparatory school at Caterham.

In 1880, his father having been appointed to the vicarage of St. Matthew's, in Auckland, New Zealand, he went out to that city, and entered at the Auckland College and Grammar School in the same year, at which institution and at the Parnell Grammar School he completed his school life, winning several prizes in Natural Science.

In 1885 he gained an entrance scholarship at the Auckland University College, and after a year there, entered at the Auckland Hospital, where he spent two years, being appointed Clinical Assistant during his second year. He then left for England, and entered at Westminster, gaining an entrance scholarship in Natural Science in April, 1888.

During his hospital career, he carried off two exhibitions—the Treasurer's and the Bird—together with prizes in Chemistry, Practical Chemistry, Materia Medica, Midwifery and Forensic Medicine, finally qualifying at the Conjoint Board in April, 1891, within three years from the commencement of his studies.

He then spent a year in residence at the Hospital, occupying the posts of Junior and of Senior House Surgeon. Whilst

there he had a severe attack of diphtheria, complicated by an abscess in the middle ear, which no doubt contributed to undermine a constitution never very strong.

In June, 1892, he was selected as House Surgeon to Addenbrooke's Hospital, Cambridge, from among nearly one hundred candidates, and shortly afterwards entered at Queen's College as an undergraduate of the University.

Passing the Previous Examination in October, and the first M.B. in the following June, he completed the General Examination for the degree of B.A. in Christmas, 1893.

He suffered from a severe attack of influenza during December of that year, but instead of taking a well-earned holiday, he continued his hospital work, and also his reading for the second M.B. In April, 1894, he experienced a slight attack of hæmoptysis, and was ordered to Eastbourne for a few weeks' change, returning to Cambridge for a short time in May.

A second similar attack compelled him to apply for a year's leave of absence, but when on the point of taking a voyage to New Zealand, his illness assumed an acute form, and, sinking very rapidly, he died on Wednesday, June 27th, 1894.

Of a studious and retiring disposition, he was acquainted with few men except those of his own year, but those who were intimate with him knew well his deep interest in and devotion to Medicine.

His success in the face of difficulties which fall to the lot of but few, and his extraordinary determination to succeed, cost what it might, show that one has been prematurely removed from among us whose future career would have been an honour both to himself and his profession.

INTUBATION OF THE LARYNX.

By PHILIP DE SANTI, F.R.C.S.

THE object of this short paper on Intubation of the Larynx, and the conditions under which it may be performed, is to bring forward the great value of the operation in selected cases, and the excellent results that have been obtained in its practice by those who have made themselves familiar with the operation.

Intubation has now been performed very largely, especially in America and many parts of the Continent, and with very great success. Amongst English Surgeons, however, especially, as an operative measure for diphtheritic obstruction, it has not become very popular, and it is part of the object of this paper to inquire why this is so.

In hospital practice the operation of intubation or of tracheotomy in the great majority of cases is performed by the resident medical officers, and it has been my experience that very few indeed of the residents even contemplate intubation in cases of laryngeal obstruction.

I remember well when I was one of the House Surgeons at my Alma Mater, St. Bartholomew's Hospital, the pride that every House Surgeon took in the performance of each tracheotomy, and how keen he was to add yet another to his "number of cases," so that he might have a good "total" at the end of his term of office. Given a case of laryngeal obstruction requiring operative interference, tracheotomy or laryngotomy was invariably performed, and intubation not even thought of.

Quite recently I saw a child with œdema of the glottis, due to drinking boiling water out of the spout of a kettle. The patient had urgent dyspnœa, and the parents would not consent to tracheotomy. Here was a case eminently suitable for intubation, but it was not performed, and principally from disincli-

nation on the part of the medical man to attempt intubation himself, he having neither experience of the actual use of the instruments on the cadaver or animals, nor having seen the operation performed by others.

Now, if one contemplates a young resident medical officer called upon or wishing to try intubation for the first time on a child or adult with acute œdema of the glottis, quite unfamiliar with the instruments, therefore necessarily never having attempted intubation on the dead body, nor having seen the operation performed, is it to be wondered at that he should prefer tracheotomy, an operation which from his early student days he has always been taught to regard as a most important one, and with the details of which he must be perfectly familiar if he is to get through his various examinations, and an operation which he sees frequently done and knows he will be called upon to perform himself in his capacity of resident at any hospital or at any moment in his future career as a medical practitioner.

Intubation, no doubt, has gained in England a certain amount of disrepute from the fact that the operators in many cases have failed from a want of knowledge in the manipulation of the instruments, and the after management of the patients, and that subsequent tracheotomy had to be done, a proceeding which is very fatal. The mortality, however, of these secondary tracheotomies, according to Bernard Pitts, may be due to the fact that cases sufficiently malignant and progressive to be unrelieved by intubation are almost certain to die under any circumstances.

Unless the operator is perfectly "at home" with O'Dwyer's tubes, and has frequently intubated experimentally, tracheotomy is undoubtedly the safer operation.

Dr. R. N. Lovett,* of Boston, U.S.A., gives the results obtained at the Boston City Hospital from tracheotomy and intubation respectively. Between the years 1864 and January, 1887, 327 tracheotomies were performed for croup. Between December 31st, 1886, and January, 1891, intubation was performed 392 times, under the same conditions and in the same class of cases, most of them being bad and in the late stage. Of the 327 tracheotomies, 232 died and 95 recovered, giving a percentage of recoveries of 29·05. Of the 392 intubations, 312

* *Medical News*, August 27th, 1892.

died and 80 recovered, giving a percentage of 20·41 of recoveries. The death rate, therefore, was 9 per cent. higher in the intubations.

Now, in answer to these results, O'Dwyer* writes, "It is proper here to state that the intubations at the Boston City Hospital have been performed by the resident medical staff in rotation, the changes of service occurring monthly. That the custom of allowing so many persons to do an operation that requires so much practice to do with even a moderate degree of safety is the principal, if not the only cause of the bad results obtained at the Boston City Hospital, is amply demonstrated in various parts by Dr. Lovett's paper. For instance, in regard to the accidents of intubation, Dr. Lovett speaks as follows: 'Twenty-one times intubation was attempted and immediate tracheotomy was necessitated by the cessation of breathing. In three cases death occurred during attempts to insert the tube. Two children died during the choking spells. In two cases the tube was drawn into a bronchus and death, of course, resulted. In two the insertion of the tube was followed by convulsions. In two the introducer broke during the operation. This list of accidents all necessitating tracheotomy, it seems to me is a serious commentary on the operation of intubation.'"

Dr. O'Dwyer criticises this list of accidents as follows:—"It is a very serious commentary on the operators not on the operation, because only one of these accidents belongs to intubation when skilfully performed, and that occurred after the tube had been in position for some time. Only two of the 392 cases are reported as having choked to death while the tube was in the larynx. This accident is due to loose membrane in the lower portion of the trachea which plays the part of a valve by closing around the distal extremity of the tube and obstructs expiration almost exclusively. It is the only accident attending intubation in skilful hands that is worthy of serious consideration."

As instances of the good results obtained from intubation when practised by those experienced in the operation and in contrast to the bad results at the Boston City Hospital we may take the results obtained at the Willard Park Hospital, where the Resident Physician, Dr. Lester, intubated in 186 cases during

* *Trans. New York Academy of Med.*, 1893.

a period of less than three years. The cases were not of a more favourable nature than those at the Boston City Hospital, but the percentage of recoveries reached thirty-eight, a difference of nearly eighteen in favour of intubation. Bernard Pitts, in his able address on the Surgery of the Air Passages and Thorax delivered at the Royal College of Surgeons, England, states:— "Intubation will probably take the place of tracheotomy in certain cases of œdema from scalds when the scald is confined chiefly to the glottis and the *surgeon is practised in the art of passing intubation tubes and can do the operation quickly and without using force*," and again later, "The rapidity with which an intubation tube can by a practised hand be introduced without chloroform and in emergency without the consent of the friends, *makes it absolutely necessary for every surgeon to become familiar with the manipulations.*"

If, also, we turn to the opinions expressed by those gentlemen in England who, as resident medical officers holding their appointments for some time, have given intubation and tracheotomy a fair trial, we find they all agree in recommending at all events a further trial of the method.

Dr. W. W. Ord in the St. Thomas' Hospital Reports, vol. XIX., p. 83, after relating his own personal experiences of intubation, writes as follows:—"Having had during a year's residence at St. Thomas's Hospital an opportunity of watching a large number of cases of diphtheria and of performing tracheotomy, I have on hesitation in saying that although the cases of intubation related above had no better success than I gained in tracheotomy, yet as a result of my experience of the former operation I should always, where possible, perform it in preference to the latter. Even if the percentage of successful cases of intubation were far less than it is, I think that, considering the terrible mortality that results from the accepted surgical treatment of diphtheria, both intubation and any other method that may in the future be suggested for relieving this awful scourge should be fully tried on its merits by all who may have the opportunity of doing so. This method of procedure in London is as yet in the hands of few, but every day I see fresh admirers of its rapidity and successful results, and I feel sure that before long it will be accepted as an ordinary form of operation by the profession in this country."

In the same reports Dr. Turney, who had experience of twelve

cases whilst resident at St. Thomas's and the South Eastern Hospital of the Metropolitan Asylums Board, writes:—"The advantages are so obvious that there seems little necessity for its advocacy; no one but a House Surgeon would choose tracheotomy for the operation's sake." He, however, points out some of the dangers to those who are commencing its practice. W. F. Brook, of Swansea, and formerly House Surgeon at the Great Ormond Street Hospital for Sick Children, states*:—"During the last four years I have been in the habit of regarding my intubation instruments as equally as essential to the proper dealing of emergencies as my case of catheters. And just as in the great majority of cases of obstruction to the urethra one never dreams of puncturing the bladder before attempting catheterization, so in the vast majority of cases of stenosis of the larynx I attempt intubation before proceeding to tracheotomy."

I therefore arrive at the conclusion that intubation has not gained in England the degree of popularity which it is entitled to, principally because the operators have been quite inexperienced in the details and after management of the operation, and that it has been performed mostly by resident medical officers who, having tried it only once or twice, have given it up in disgust owing to the difficulties of manipulation, &c., instead of trying to overcome the obstacles and perfect themselves in the post-mortem room.

Only by those skilled in the technique of the operation by careful and prolonged attempts on the dead body, and subsequently on the living, will the best results be obtained. I, therefore, would urge that students be taught how to thoroughly manage the instruments, and that they should take every opportunity to intubate in the post-mortem room and during their course of Operative Surgery, so that, when called upon to intubate in suitable cases, they may feel that amount of confidence which is necessary for any and every successful operation.

At the same time, I do not wish it to be thought that I consider intubation capable of entirely replacing tracheotomy. I am, however, convinced that there are many conditions of laryngeal obstruction eminently suitable for it, where, given a skilled operator, the very best results will be obtained.

* *Journal of Laryngology*, October, 1894, p. 641.

The Operation of Intubation.

If a child, the method of operating is briefly as follows:—The tube selected should be threaded with a piece of silk, the ends of which are tied together to prevent its being accidentally pulled out. The obturator is then screwed on to the introducer, and the tube fitted on to the obturator.

The child should be swathed in a blanket from the chin downwards, and the nurse, who is to hold the child, should sit in a high straight-backed chair bolt upright, both nurse and child facing the operator.

The nurse is to be most careful to grasp the child's elbows firmly outside the blanket, and to clasp the child's knees between her legs. The assistant who stands behind the nurse's back has two important duties:—(1) to command the gag, and (2) to keep the head of the patient steady.

The operator sitting or standing in front of the child instructs his assistant to keep the head firmly between his hands and somewhat flexed, the bending of the head downwards bringing the opening of the glottis much more within reach. The gag having been inserted on the right side of the mouth and handed over to the assistant, the index finger is passed rapidly over the back of the tongue and behind the epiglottis until the upper aperture of the larynx is felt.

Hooking up the epiglottis with his finger, the operator passes the introducer into the mouth and over the tongue, keeping as strictly to the middle line as possible. He then passes the tube through the glottis, directing it with the tip of his finger, makes certain of its position, and by pressure on the slide of the handle of the introducer sets the tube free, and withdraws the introducer and attached obturator.

The entry of the tube into the larynx is evidenced by coughing and expectoration, and then by relief to the breathing. The gag is then removed.

Should the operator decide to take the thread away, he divides it, passes his left index finger back to the upper extremity of the larynx, and presses against the head of the tube while the thread is withdrawn.

To extract the tube, place the patient in the same position and insert the gag. The left index finger having been passed to the

epiglottis, the latter is hooked up and the tip of the finger placed on the arytenoids, marking the posterior boundary of the glottis in the median line. The extractor is then inserted, and guided into the opening of the tube by following the median line to the tip of the finger and then elevating the handle. The spring in the handle is then pressed, and the tube withdrawn.

It is as well in case the tube slips away from the extractor to keep the left forefinger ready to catch it beneath its head.

In adults, owing to the distance of the mouth to the larynx being so much longer than in the child, it is often difficult to guide the tube into the larynx with the finger; in such cases it is well to use the laryngeal mirror.

Difficulties of the operation.—O'Dwyer* says:—"Nothing could be more erroneous than the prevalent opinion that it is an easy matter to place a tube in the larynx, or remove it, but I am satisfied that a single trial will serve to convince most persons of this fact." This statement I can thoroughly endorse, and I make a practice of keeping "my hand in" by constantly intubating children and adults in the post-mortem room, and in also persuading students to do the same. It is very common to find that the student in his first attempts either fails to get into the larynx and passes the tube into the œsophagus, or bruises considerably the upper aperture of the larynx, as evidenced by subsequent examination of it.

Rapidity in operating is absolutely necessary, as respiration is suspended during the introduction of the tube; if there is difficulty therefore in introducing the tube the attempts should be stopped for a time, and then recommenced.

The point of the tube may enter one of the ventricles of the larynx; this is, however, most uncommon.

Subglottic stenosis due to œdema may be a source of some difficulty; in such a case a smaller tube and moderate pressure should be tried. Extraction of the tube, if the thread has been removed, is often hard, and in some cases the point of the extractor has been passed by the side of the tube, and the larynx damaged when the blades are opened; but the extraction should not be difficult when it is possible to feel the tube

* *Ball on Intubation of the Larynx*, p. 23.

with the forefinger, and in cases such as adults, where it is impossible, the laryngeal mirror will guide the operator.

Accidents.—In diphtheritic obstruction membrane may be pushed down by the tube. It, however, appears to be a rare accident, having happened to O'Dwyer three times only in his first 209 cases.

It is usual to find that immediately after introduction of the tube, the coughing brings up large pieces of membrane, or more rarely the tube itself. If the tube is not coughed out it should be withdrawn, when the loose membrane will almost certainly be coughed up. Waxham* states that by careful watching the first indication of membrane can be detected, and the tube removed, when whole casts of the trachea or bronchi are sometimes expelled.

The symptoms of loose membrane when the tube is in the larynx are a croupy cough, a flapping sound, and sudden obstruction to the outgoing air. Northrup† recommends some special short tubes of greater calibre, "short cylinders," in cases where the longer tubes fail, but only as a temporary measure. Should the tube by mistake be passed into the œsophagus the string will probably shorten, the dyspnœa continue, and there will be an absence of the characteristic cough produced when the tube is introduced into the larynx. Naturally the tube must be at once withdrawn by means of the attached thread.

After-Management of the Patient.

Feeding.—In a great number of cases this is a difficult matter, and principally for two reasons: (1) The soreness of the larynx and consequent pain caused by the act of swallowing; (2) Cough, due to fluids entering the trachea.

The best method of feeding a child is that practised by Dr. Casselberry, of Chicago. His directions are: Place the child across the nurse's lap, bend the head well down, and feed either with a spoon or through a nursing bottle. By this method the patient swallows, so to speak, uphill, and if any fluid enters the tube it at once runs out again. Soft solids,

* *Journal American Med. Association*, 1892.

† *Journal of Laryngology*, October, 1894.

except in infants under two years of age, are swallowed with more comfort than fluids.

W. F. Brook, of Swansea, has intubated several cases, and amongst them children of eighteen months, five years, and four months, and has had no difficulty whatever with the feeding. They all took ordinary food, and the four months old child took the breast whilst the tube was in the larynx.

Should the tube be coughed up during the course of the treatment there is generally no danger for a couple of hours or more, and there is therefore sufficient time to summon the medical attendant.

If the surgeon then finds there is no urgent dyspnœa he may wait for a while before re-intubating, as the stenosis may be sufficiently relieved, and the tube be no longer required. It is necessary, however, to be within easy call for some little time afterwards. Northrup states as his experience:—"Whether, pressure removed, the mucous membrane becomes quickly congested, or whether muscular spasms set in, or membrane re-forms, I know not, but I have learned to respect the emergency of the first twelve hours after removal of the tube, especially if it be a premature removal."

As a rule the tube can be dispensed with by the fifth to the sixth day. In some cases, however, at a much earlier date, in others at a much later one.

Ulceration.—Dr. H. G. Turney (St. Thomas' Hospital Reports, vol. XIX.) describes some cases of intubation under his care, in which, post-mortem, severe ulcerations of the larynx, &c., were found. He considers ulceration to be the chief danger incident to intubation, and its causation, the pressure of the tube or the irritation of the string to which it is attached. In two of the cases where ulceration was present, scarlet fever complicated the diphtheria, and my interpretation of the ulcerations is that they occurred in cases of a particularly malignant type, and that the tissues were so disorganised that destructive ulceration would have occurred equally around a tracheotomy tube.

Later on, in this paper, I state that I think tracheotomy is preferable in diphtheritic cases with extensive deposit of membrane on the pharynx, palate, or nasal passages, and when complicated with scarlet fever.

Indications for the Operation.

A. *Acute Stenosis.*

(1) *Diphtheria.*—I have not space here to enter into the much debated question of intubation versus tracheotomy in diphtheritic obstruction. It has been sufficiently discussed of late and most authors have agreed that on the whole there is a gain of about 5 per cent. in intubation. All cases of diphtheria requiring operative treatment are not equally suitable for intubation, and I most decidedly hold that it cannot by any means entirely supersede the older operation of tracheotomy.

Intubation in diphtheria is indicated in cases of a mild nature with slowly developing larnygeal stenosis, where the general strength is fairly well maintained, and where there are no signs of septic poisoning and no spreading of the diphtheritic process to the bronchi.

It is contra-indicated where there is a large quantity of membrane on the pharynx, palate, and tonsils, in nasal diphtheria and when complicated with scarlet fever.

The age of the patient is a point of some considerable importance. The fatal results of tracheotomy for diphtheria under two years of age are well known. Intubation, on the other hand, gives very fair results, and should therefore be given the preference during the first two years. As age advances the number of recoveries increases after tracheotomy as after intubation, the maximum of recoveries occurring after six years.*

De Havilland Hall, in his book on Diseases of the Nose and Throat, p. 424, writes of intubation in diphtheria:—"We can save as large a proportion of cases as by tracheotomy at all ages, and a much larger proportion among children less than three years of age."

He gives the following comparative table of Stern's:—

	Per cent. of intubation recoveries.	Per cent. of tracheotomy recoveries.
Under 2 years	15·5	3
Between 2 and 2½ years	24·5	12
„ 2½ „ 3½ „	28·9	17
„ 3½ „ 4½ „	33·7	30
„ 4½ „ 5½ „	28·3	35

* *Bail on Intubation*, p. 35.

The following are some of the advantages, I maintain, intubation offers in diphtheritic stenosis:—

(*a*) The consent of the parents to the operation of tracheotomy is often refused, or at all events delayed till the last moment, whereas intubation is readily consented to, and thereby a large number of cases which would otherwise have had a fatal issue are saved.

(*b*) The operation being a bloodless one, and not involving any cutting operation, there is no danger of infection of a wound, loss of blood, &c.

(*c*) No anæsthetic is required, and a certain number of lives are thus saved.

(*d*) The operation can be performed at a much earlier stage of the disease than tracheotomy, and the patient's strength, the dyspnœa being relieved, is well maintained.

(*e*) The air inspired passes through the natural passages, and is thereby warmed and moistened.

(*f*) The patient if at home and poor is more easily nursed.

(*g*) The tube can be dispensed with early, usually by the sixth day; tracheotomy sometimes necessitates retaining the canula for some long time.

Diphtheria is now being treated extensively with injections of antitoxin serum, but it is far too early to state definitely with what results. It seems to be, however, that if the antitoxin reduces the quantity of membrane as stated, one of the great objections to intubation will be overcome, and given the presence of œdema sufficient to cause dyspnœa requiring operative relief, intubation will be more than ever indicated.

(2) *Acute non-diphtheritic stenosis* in children and adults due to, for instance, scalds of the larynx, acute laryngitis, œdema of the larynx, and sudden spasm of the glottis.

In all these conditions intubation is far preferable to tracheotomy, and in the hands of those who have tried it the very best results have occurred. The objections urged by those opposed to the operation in diphtheria, such as the pushing down of the membrane by the tube, its accumulation below the tube blocking it, and the occasional difficulty in its expulsion, do not apply to these cases.

(3) *In sudden spasm of the glottis*, or respiratory obstruction

at the glottis, such as may occur in the administration of anæsthetics. Mr. Staveley* has recorded one such case. Tracheotomy was being performed for urgent dyspnœa, due to lymphadenoma of the neck; respiration gradually became embarrassed and then ceased before the trachea was reached. Mr. Staveley at once inserted an O'Dwyer's tube; respiration followed, and the operation, a difficult one, was completed with ease.

(4) *For diagnostic purposes*, when it is uncertain whether the dyspnœa is dependent on obstruction in the upper air passages, or to some condition affecting the tubes lower down.

Some little time ago I saw tracheotomy performed for urgent dyspnœa where the diagnosis was uncertain. No relief followed, and the patient died. Post-mortem a large intra-thoracic aortic aneurysm was found pressing on the lower air passages and causing complete paralysis of the left side and partial abductor paralysis of the right side.

(5) W. F. Brook (*Journal of Laryngology*, October, 1894) has recommended that whenever there is the slightest suspicion of the presence of a foreign body in the trachea, instead of waiting for further evidence, which is sometimes given by sudden and fatal spasm of the glottis, intubation should be performed.

B. *Chronic Stenosis.*

Here intubation is performed (1) to relieve present dyspnœa and to gradually dilate the stricture, the latter being comparable to catheterization for urethral stricture, and (2) to get rid of retained tracheal canulæ.

Some of the greatest triumphs of intubation have been in the treatment of chronic laryngeal stenosis, so much so that Dr. O'Dwyer at the International Medical Congress of 1887 said:—

"Had intubation of the larynx proved a complete failure in the treatment of croup, I should still feel amply repaid for the time and expense consumed in developing it, for I believe it offers the most practical and rational method yet devised for the dilatation of chronic stricture of the glottis."

In laryngeal obstruction dependent on chronic cicatricial

* *Med. Society's Trans.*, Vol. XIV., p. 117.

stenosis, tracheotomy has usually been the treatment, and thereby the dilating effect of the air, inspired and expired, is lost. By intubating, the lumen of the larynx is maintained and gradually increased, and the tube can be worn for a long period without harm or discomfort, some considerable amount of pressure being tolerated by a larynx thickened and narrowed by chronic cicatricial material. In one of O'Dwyer's cases the tube was worn continuously, owing to his losing sight of the patient, for ten months and four days, and no evil result ensued. In intubating for the dilatation of these chronic strictures it is necessary to begin with a small tube, as the aperture may be very small indeed. Some force also may be requisite to get the tube through, and there is a danger of asphyxia occurring whilst the tube is being pressed against the unyielding contraction. To avoid this it has been recommended that the introducer be withdrawn slightly, whilst the tube is kept *in situ* with the fore-finger, thus permitting sufficient air for breathing purposes to pass through the tube.

In extreme cases where it is impossible to pass a tube with safety, thyrotomy may be done, and the cicatricial tissue cleared away and subsequent intubation performed intermittently.

After dilatation of the stricture to an extent compatible with easy breathing, a tube should be introduced once or twice a week and left in for twelve to twenty-four hours. According to the progress of the case this interval can be increased.

O'Dwyer and others have recorded several cases of chronic syphilitic stenosis treated in this way, and the results have been most satisfactory.

II. *For Retained Tracheal Canulæ.*

It has probably been the experience of most surgeons who have had occasion to perform many tracheotomies, to come across a patient every now and then who is quite unable to dispense with the tracheotomy tube within the ordinary time. I have seen at least eight cases, either in adults or children, and in two patients of my own on whom I performed tracheotomy for diphtheria, it was impossible to dispense with the tube. This occurred some years ago, and before I was aware of the advantages afforded by intubation.

Ranke* gives as the principal causes of difficulty in dispensing with the tracheotomy tube:—

(*a*) Granulations growing up in the region of the tracheotomy wound, especially at its upper part.

(*b*) Cicatricial stenosis, either at the site of the incision, or at some point in the trachea where the canula presses.

(*c*) Swelling and thickening of the mucous membrane of the larynx between the under surfaces of the cords and the lower margin of the cricoid (chorditis inferior hypertrophica).

(*d*) Bilateral abductor paralysis.

(*e*) Paresis of the cords from disuse.

(*f*) Dread of having the canula removed, producing laryngeal spasm.

In all these forms of difficulty, intubation should be given a thorough trial, and will generally effect a complete cure.

In the Medical Society's Transactions, vol. XIV., there is a very interesting communication by B. Pitts and W. F. Brook dealing with this subject. They give details of four cases treated by them, in all of which intubation was successful. In the first case tracheotomy was performed December 14th, 1886, in a child of three, for urgent dyspnœa. On December 17th the tube was removed for five hours, but had to be replaced. Scarlet fever then developed, and the child had to wear the tube continuously throughout the illness. On February 15th, 1887, the tube was removed again, but on March 8th, owing to urgent dyspnœa, tracheotomy was re-performed. On June 20th the tube was left out, but one hour later spasm occurred and the tube was put in again. Dilatation was then tried for some three months, MacEwen's tracheal dilators being used, but eventually tracheotomy was again necessary, and the child wore a silver tube till March 1st, 1889. Finding that the patient was still unable to do without the tube Mr. Pitts tried intubation, but without success. He eventually did thyrotomy and dissected away a regular diaphragm of cicatricial tissue which blocked the larynx, and then intubated, and a perfect cure resulted.

For three years, therefore, had attempts been made to cure the patient, but without success. The authors emphasize the fact that ordinary means having been used to leave out the tracheotomy tube, intubation should be tried at once, and if

* *Ball on Intubation*, p. 46.

no definite improvement follows within a short time, then a free exploration of the parts should be made, all cicatricial tissue completely removed, and intubation again tried, and without giving time for re-contraction to occur.

In the 4th case the tracheotomy tube had been worn continuously for over five years. Intubation failed, until a diaphragm-like web of cicatricial tissue was cut away by operation, when repetition of the intubation cured the patient.

In the 2nd case the tube had been worn constantly for four months and all attempts to leave it out produced urgent dyspnœa. Intubation effected a complete cure.

In the 3rd case great difficulty was experienced in restoring natural breathing, owing to extensive sloughing of the tracheotomy wound and necrosis of parts of the tracheal rings, and the consequent large amount of cicatricial tissue. Intubation, however, was ultimately successful.

The authors as a result of their experience observe:—"The advantages of O'Dwyer's method over any other form of dilatation are so obvious, and the risks in such chronic cases are so small, that if this form of intubation were only applicable to such cases, we would still owe a debt of gratitude to O'Dwyer for placing this means of treatment at our disposal."

Other equally successful cases have been recorded by Guyer, Gampert (in one case intubation for a period of 31 hours resulted in a cure, in another in which the tracheotomy tube had been worn seven months, 29 hours intubation was effectual), Bruce Clarke, &c.

The length of time that a cure by intubation will take, depends greatly on the amount and nature of the cicatricial tissue causing the stenosis; the greater the quantity and the more unyielding, the longer will it take to overcome it.

The tracheotomy wound, according to O'Dwyer, should under all circumstances be kept open until sufficient breathing space has been obtained through the natural passages to sustain life, in case the tube be coughed up.

In adults, if the wound is well in the trachea, a small canula, plugged, can be worn together with the intubation tube, there being in such a case room for both. The intubation tube should not be kept in the larynx continuously for more than a week.

In *papillomata of the larynx*, some surgeons have recom-

mended the operation for these growths; it is, to say the least of it, dangerous, as pieces of the neoplasm are very liable to be detached and pushed down by the tube, and there may also be severe hæmorrhage and asphyxia. B. Pitts, in one case under his care, gave it an extended trial, but the relief to the breathing was only temporary, and the papillomata were much irritated by the tube.

Intubation is moreover unsuitable in any form of active laryngeal ulceration, tubercular swellings, new growths and obstruction due to displacement or alteration in the shape of the trachea, dependent on tumours of the neck and bronchocele and post-pharyngeal or other cervical abscesses.

RECURRENT PERI-TYPHLITIS AFTER AN INTERVAL OF NINE YEARS, INDUCED BY HABITUAL AND NEGLECTED CONSTIPATION. RECOVERY.

By F. S. PALMER, M.D., formerly H. S.

G. A., aged 33 years, a bank clerk, slightly built, and of delicate appearance, came to see me in the evening of September 19th, 1894, complaining of intestinal colic, with general abdominal discomfort. He told me he had been feeling "out of sorts" for two or three days, and had taken some strong aperient pills the night before as he felt he "required them." The dose had acted well, but had not given him any relief from his suffering. His temperature was normal, pulse 72, and his tongue rather coated. I ordered him a tablespoonful of castor oil to be taken at once, and prescribed a mixture for him, containing chlorodyne and soda bicarbonate, to be taken about every 4 hours. At the same time I advised him about his diet, and suggested that he should not go to town as usual in the morning, unless he felt better. Having obtained relief from the remedies he went to London by an early train, but a recurrence of the pain about the middle of the day obliged him to return to Sheen in the afternoon, and to send a messenger to my house. I visited him at seven the same evening, and found him in such misery that I sent him to bed. The castor oil acted well last night, and again this morning at the bank. On examination, I noticed his abdomen was slightly distended, and generally tender to the touch. There was a little gurgling noise in the right iliac fossa, with some increase of pain on pressure; but the tenderness extended to all the regions below the level of the umbilicus. His pulse was 72. Temperature 99°. I ordered a large linseed poultice to be applied over the lower abdomen,

and gave him ½ grain of opium in pill every 4 hours. His diet to consist of milk and beef-tea only. In the course of conversation, I ascertained that he had whooping cough in childhood, and an abdominal attack (the nature of which he did not understand) in October, 1885, at Chard, in Dorsetshire, which lasted several weeks. In February, 1886, he lost an elder brother from pulmonary phthisis, but there was no other history of tubercular disease in his family.

September 21st.—When I saw him at 9.20 a.m. he was still suffering considerable pain. The abdomen was more distended, and very tender. His tongue was thickly coated with a creamy fur. Pulse 96. Temperature 100°. Respirations 24. No action of bowels. There was very decided increased resistance in the abdominal wall to the right of the umbilicus. The dose of opium was increased to 1 grain every 3 hours. In the evening his temperature rose to 101°.

September 22nd.—He passed a more comfortable night, sleeping soundly at intervals. The abdominal tenderness was not so general, and appeared more limited to the cæcal region. Tongue coated. Pulse 84. Temperature fallen to normal. There was a fæcal smell about his breath. No action of bowels. His urine contained a small quantity of albumen. As he complained so much of the weight of the poultice, I told the nurse to smear the abdomen with some extract of belladonna and glycerine, and to cover it lightly with cotton wool. I gave him ¼ of a grain of extract of belladonna with each opium pill. The evening temperature continued normal.

September 23rd.—He passed a fairly comfortable night, and appeared to be suffering less pain. The abdominal tenderness had become more circumscribed. The fulness and increased resistance was more pronounced over the cæcum. His temperature was normal. Pulse 76. Respirations 16, and tongue coated. An enema of 1½ pints of soapy water was administered at 7.30 a.m., followed by a liquid evacuation having a slightly fæcal smell. He vomited twice during the day. A second enema given in the evening, consisting of olive oil, turpentine, and thin gruel was retained, and not followed by any result. The temperature continued normal all day.

September 24th.—There was little or no change in his general condition. Temperature normal. Pulse 72. Respirations 16.

Examination of the abdomen detected a well-defined, solid protuberance in the right iliac fossa, which suggested a large fæcal accumulation. I ordered him another enema, which was retained, and not followed by any result. In the evening I found him in great distress from flatus. The abdomen was much distended, tympanitic, and very tender all over. He said that he could feel the gas rolling about, endeavouring to overcome some obstruction on the right side, and that he was unable to discharge it. His temperature rose to 101°.

September 25th.—He passed a restless night, but having succeeded in discharging a considerable quantity of flatus per anum, he felt more comfortable, and in less pain. Temperature 99·4°. Pulse 72. No action of bowels. The enemas were suspended, and his diet was restricted to a little milk and small quantities of Valentine's meat juice in water. The abdomen was still much distended, tympanitic, with a good deal of gurgling. A solid, compact mass, which occupied the cæcal region, was distinctly felt. The evening temperature rose to 100·6°.

September 26th.—His abdominal distress from flatus was so great in the early morning that I decided to try another enema. This was followed one hour later by a small liquid stool, with a more strongly marked fæcal odour than I had observed before. Temperature 100·2°. Pulse 82. Respirations 18. In the neighbourhood of the cæcal protuberance I noticed some slight œdema, extending towards the flank. No fluctuation could be detected in the mass. He had no rigor, or any return of vomiting, but the state of his tongue and breath was particularly unpleasant. His evening temperature was 101°.

September 27th.—He passed a wretched night, in constant pain from flatus, which he was unable to discharge. Although the abdomen was much distended, the cæcal protuberance was well marked, less tender, and appeared rather smaller. Pulse 80. Respirations 24. Temperature 100°. He had no vomiting, and no action of the bowels. I gave up the belladonna treatment, and put him on one grain opium pill every 4 hours. In the evening his temperature was 100·8°.

September 28th.—During the early part of the night he succeeded in getting rid of a large quantity of flatus per anum, after which he enjoyed some good, sound, refreshing sleep. His morning temperature fell again to normal. Pulse 68. Respira-

tions 18. There was no vomiting, and no action of bowels. The abdominal distension was much reduced, and the diminution in the size of the hard cæcal mass noted yesterday was more apparent. There was still very slight œdema of the right flank. His temperature remained normal all day.

September 29th.—He had an excellent night, and was able to pass flatus freely. The swelling in the right iliac fossa was certainly smaller, and more circumscribed. The reduction in the size of the abdomen enabled me to grasp it with my fingers, and to map out its limits. It presented a hard, solid, compact mass, perfectly smooth, and measured about 2 inches by 1½ inches. Temperature normal. Pulse 70. Respirations 17. He had a strong fæcal odour of the breath. There was no vomiting, and no action of the bowels.

September 30th.—After an enema, which I ordered to be given early in the morning, his bowels acted copiously; an enormous quantity of solid formed fæcal matter was expelled, which gave him great relief. The evacuation did not, however, appear to make any difference in the size of the iliac tumour, which remained much the same. Temperature normal all day. Pulse 72. Respirations 18. He was given some ox-tail soup and Benger's food, in addition to the milk and Valentine's meat juice. The opium pills were reduced to three in the 24 hours.

October 1st.—There was a marked improvement in his condition. After another enema administered this morning, he passed a second large, solid, and formed stool. The tongue was beginning to clean, and he had lost the fæcal odour of the breath. Pulse 66. Temperature normal. There was very little abdominal distension; but the cæcal mass, although smaller, did not appear to have been materially influenced by the evacuation. From this date he continued to improve steadily (each day I noted a reduction of the exudation mass in the cæcal region) until the afternoon of October 5th, when he was seized with a violent attack of colic, which I traced to an indiscretion of diet. The abdomen began to swell up again, and was distended with flatus, which he was unable to discharge. I put him back to the restricted diet, with a grain opium pill every 3 hours. This state of discomfort continued for another three or four days, without any vomiting or rise of temperature, and terminated with the discharge, or rather loud explosion of flatus, followed

by two large evacuations passed naturally on the morning of October 9th. In spite of the persistence of pain during this period, the iliac tumour has been rapidly and steadily resolving. Since then his convalescence has been uninterrupted. He has had a daily evacuation from the bowels, and there is now, October 20th, no trace of the exudation mass to be detected on deep pressure in the iliac fossa.

Remarks.

There can be, I think, no question that the illness from which my patient, G. A., has made such an excellent recovery was a Recurrent Peri-typhlitis, set up by habitual and neglected constipation. In order to satisfy myself about the nature of his previous abdominal attack in October, 1885, I wrote to the doctor who attended him at Chard for positive information on the subject, and his reply confirmed my suspicions. The chief points of interest in the case appear to me to be: 1st. The comparatively long interval between the two attacks, taking into due consideration the fact, that his constipated habit had existed all the time. He told me that for years he had never had an action of the bowels without taking aperient medicine. 2nd. The absence of any decided indications for surgical exploration of the appendix after the first few days of the illness. 3rd. The good results which, in my experience, not infrequently follow the judicious and regular use of enemata when the existing cause is suspected to be due to neglected habits.

East Sheen, S.W.,
October 22nd, 1894.

ON THE DIFFERENCES BETWEEN BACTERIUM COLI COMMUNE OF DIFFERENT ORIGINS.*

By H. S. FREMLIN, *formerly R.O.A.*

Much has been written on the bacterium coli commune, and in apologizing for thus adding to the literature of the subject, I may here say that a comparison between bacterium coli found in man and that found in animals has, I believe, not heretofore been made. This species of bacterium was discovered by Escherich in 1885; it was isolated from the lower intestine of suckling infants, and designated bacterium coli commune. Afterwards it was found to be a constant occupant of the large intestine of man and of animals. Although Escherich had demonstrated certain pathogenic properties in this micro-organism, an extensive pathogenic role, especially in human pathology, was not at first ascribed to it. In the last few years, however, a large series of observations have shown that bacterium coli commune is not such a harmless guest in the intestine as was originally supposed. The first observation in this direction was made by Laruelle (La Cellule V., p. 889). This author observed two cases of perforative peritonitis in man, in which he found bacterium coli in the exudation. By injecting cultures into animals, he was able to set up artificial peritonitis. Large numbers of similar observations have since been made, and now, no doubt remains that bacterium coli may not only give rise to disease, but especially that of an inflammatory character.

Here I will specially allude to the experience of Alex. Fränkel (Wiener Klin. Wochenschr., 1891, Nos. 13-15) who, out of 31 cases of peritonitis (mostly perforative), found in 9 instances bacterium coli in pure cultivation in the exudation. With these cultures he induced typical peritonitis in rabbits. Now cultures of bacterium coli obtained from ordinary fæces have not a

* For the complete details of the experiments which were carried out at the Berlin Hygienic Institute, see Archiv. f. Hygiene XIX., 1893, pp. 293—316.

corresponding pathological effect. Hence bacterium coli may exist in a virulent and non-virulent form. Fränkel further found that the virulent form could be obtained experimentally by ligaturing the gut after laparotomy: in the peritonitic exudation thus produced, bacterium coli with virulent properties are present.

Besides for its pathogenic properties, bacterium coli is also interesting in that its cultures closely resemble those of Eberth's typhoid bacillus, and even in the last few years not a few have failed to discriminate between them; yet recent researches leave no doubt that we have to deal with two distinct species. The important points of difference are three. (1) The number of flagella in the individual bacterial cell. (2) The power of fermenting grape sugar solutions and the behaviour towards milk. (3) The formation of indol in peptonised media. With regard to the first point, Luksch pointed out that bacterium coli usually possessed but one flagellum, attached to one end of the cell, and rarely 3 or 4, while in the typhoid bacillus they are more numerous, varying from 9 to 12. With regard to fermentation, Th. Smith found, and his observation has been abundantly confirmed, that when bacterium coli grows in 2 per cent. grape-sugar-bouillon, gas is developed, while under similar conditions bacillus typhosus produces none. Acidification and coagulation result from growing bacterium coli in sterile milk, while bacillus typhosus produces little if any acid or clot.

The third point, viz., the formation of indol, was first examined by Kitasato, in cultivations of bacterium coli in peptonised media. After the addition of potassium nitrite, and sulphuric acid the nitrosoindol reaction is obtained, while from corresponding cultures of the typhoid bacillus there is no reaction.

Now the questions discussed in this paper are "whether bacterium coli, obtained from different species of animals by means of plate cultivations, be identical in every case with the bacterium coli of man, whether they are to be considered as one and the same species, and whether differences, and if so what, exist between them." The answer to these questions may be obtained by comparing the cultivations from men and animals in different media and under very different conditions. In order not to extend the work too much I have confined myself to material derived from a few species of animals, and have also used the bacillus typhosus as a contrast.

At the outset of the experiments, material for examination was obtained by inoculating gelatin tubes with small quantities of fæcal matter of man, mouse, rat, guinea-pig, dog, rabbit, and pigeon. From the original tubes a first and second dilution were made, and the latter converted into plates. Pure cultivations were obtained only from the fæces of man, dog, mouse, and rabbit. The diagnosis of bacterium coli was made from the shape of the colonies, and those which showed the characteristic membranous appearance were further examined in hanging drops and stained preparations.

Cultivations on gelatin plates showed two forms of development: in one the colonies were membraniform, the pellicles having an irregular margin and a ground-glass appearance; in the other the colonies were punctiform, with sharp, well-defined edges, usually circular in shape, and of a pale yellow hue.

In thrust cultivations the growth is rapid along the track, showing up in a few hours as a white streak. The surface of the gelatin is covered with a whitish film as in the plates. There is no liquefaction of the gelatin, which was kept at room-temperature 19° C.

The bacillus of typhoid developes much less quickly under these conditions, and this distinction becomes more obvious still on agar stroke cultivations. The growth differences in bouillon are indistinguishable. The appearances on potato varied not only with the kind of potato, but according to their reaction (acid or alkali).

For determining the fermentation properties of bacterium coli and of bacillus typhosus, sugar-bouillon, sugar-bouillon with 3 per cent. soda, sugar-gelatin, and sugar-agar were employed. All these media contained 2 per cent. grape-sugar. Nine or ten ccm. of sugar-bouillon was put in each fermentation flask and kept at 22° C., and also at 37° C. for 24 to 72 hours. Gas was always disengaged in the bacterium coli cultivations, but none from the typhoid flasks. Analysis of the gas showed $\frac{2}{3}$ CO^2 and $\frac{1}{3}$ H. Other fermentation experiments in sugar-gelatin and sugar-agar gave similar results.

The observations as to the action of bacterium coli on milk were made by inoculating 50 cc. of fresh milk and incubating at 37°. The milk was curdled in 3 days, and the amount of acidity calculated by means of phenolphthalein and soda solutions.

Resistance to heat was tested by exposing bouillon cultures of bacterium coli and also of bacillus typhosus for 24 hours to a temperature of 37°. A loopful of the bouillon culture was then inoculated on gelatin, and this made into a plate.

The bouillon culture was then exposed for 10 minutes to a temperature of 60°. On removing the culture tube from the hot water it was cooled as quickly as possible, and then another plate cultivation made. After 24 hours the colonies were counted. The plates before heating gave 7—10,000,000 colonies, those after 4,000 to none.

Two sets of experiments were made on animals. The virulence of bacterium coli was tested by inoculating rabbits with a 24 hour old bouillon culture grown at 37°. 1 cc. of this fluid was injected without effect, and 13 days later 4—5 cc. As these animals exhibited no marked symptoms, two more rabbits were operated on. In one, after laparotomy, the large intestine was ligatured in two places and the wound sewed up. In the other a sponge tent was inserted in the rectum. The intention was to ascertain if a poisonous bacterium would develope as had been found by A. Fränkel. From the peritoneal exudation pure cultivations were made on various media: these were transferred to bouillon and then used for inoculation. Rabbits inoculated with 4 ccm. died in 24 hours, and guinea-pigs in 20 hours. Secondary cultivations made from these last animals also killed rabbits and guinea-pigs with signs of general peritonitis, and bacterium coli was found in the peritoneal fluid, the liver, and spleen.

The indol reaction was obtained by adding to a pepton-water cultivation 72 hours old, 1 ccm. of 0·02 per cent. KNO^2 solution, and then a little sulphuric acid. In every instance bacterium coli gave the reaction, while bacillus typhosus did not.

The morphological characters of bacterium coli are as follows:—It is a short rodlet from 1—3 μ. long, and about 0·8 μ. broad. It can be cultivated both as an aerobe and as an anaerobe. In fresh cultures it shows slight movements, and these are most marked in agar cultures. In hanging drops the bacilli are usually single, sometimes in pairs. They possess one flagellum, and only rarely, and that in the virulent varieties, is more than one to be found.

In the present article I have dismissed somewhat curtly the

numerous experiments which were made. For the full details I would refer to the original Memoir in the Archiv. f. Hygiene, Vol. XIX., and will now sum up the results of my observations and experiments.

On gelatin, bacterium coli develops both as a pellicle or film and as small points. Viewed by reflected light the pellicles have a mother-of-pearl appearance. The gelatin is not liquefied. On potato the colonies, as a rule, grow in yellow and orange-brown streaks, which tend to spread.

Milk at 37° is coagulated in 4 days. In sugar-bouillon and sugar-gelatin well-marked fermentation occurs. On agar bacterium coli grows rapidly in white, glistening colonies; even in 4 hours the growth can be seen with the naked eye. Bouillon becomes cloudy in a few hours at 37°, and in 24 hours there is a distinct sediment.

Spores do not appear to be formed. Bacterium coli is stainable by the ordinary methods, but not by Gram's.

The coli bacteria bred from different animals show a great resemblance to one another. In all the size appears to be the same. The movements of the human bacterium coli are more lively than those of the other sorts; those from the rabbit exhibit only slight movement, sometimes none at all.

The pellicular growth on plates is always extremely thin. On potato the differences of growth are but slight. Under abnormal conditions, as when acetic acid or soda are added to the potato, the human bacterium coli shows a greater inclination to develope after the manner of the typhoid bacillus than the others, which only exhibit this phenomenon on acid potato.

With regard to fermentation, there are few differences observable when the ordinary saccharated media are used. The bacterium coli of the rabbit possesses the least power of developing gas, but if soda be added then its output of gas is greater than that of the rest.

The human bacterium coli is more sensitive to high temperatures than the other forms, and in this respect resembles the typhoid bacillus. The demonstration of the flagella is always difficult, and for bacterium coli of the rabbit impossible.

The bacterium coli, which is obtained by artificial intestinal obstruction, and has thereby acquired slight pathogenic properties, differs to a slight extent from the others. It is

somewhat larger, and, as a rule, its movements are more lively, and especially so in agar cultures from the peritoneum. The rodlets are often in pairs, and occasionally in greater combinations. The flagella are more easily demonstrated, and at times there are two. On gelatin plates the virulent variety can be seen with the naked eye in 24 hours at room temperature (55° F. circa) forming small pellicles. This I never observed in bacterium coli cultivated from fæces. On potato it grows in the usual way, and on acid potato like the typhoid bacillus, very little of the growth being visible. It coagulates milk in 3 days at 37° C., and its power of exciting fermentation is almost the same as that of the bacterium coli of man.

Differences between bacterium coli and the bacillus of typhoid fever.

Between bacterium coli and the bacillus of enteric fever there are the following diagnostic criteria:—1. The mobility of the typhoid bacillus is much freer and livelier. 2. The typhoid bacillus shows a greater tendency to form filaments, two or more bacilli usually being joined together, nor is it at all uncommon to see 6 to 10 in a single chain: the connexion of such a large number of individuals is never seen in bacterium coli. 3. The growth on gelatin plates is considerably slower, and as a rule the typhoid colonies take 3 days to attain a size acquired by the bacterium coli in 2 days. This slowness of growth also occurs both in agar cultures and in gelatin thrust cultures. 4. On potato the colonies are almost invisible, while those of bacterium coli, on the other hand, are usually very evident as broad orange-coloured streaks. 5. The typhoid bacillus has no fermenting power, while the coli organism possesses this to a marked degree. 6. The typhoid bacillus does not coagulate milk, while bacterium coli does. 7. The typhoid bacilli have many flagella, and these are easily demonstrable in cultures 1 week old. I possess preparations which show the flagella of typhoid bacilli at 2 hours, 4 hours, 24 hours, 8 days, 13 days, and 4 months old. This, in itself, constitutes an actual difference between the two microbes, for it is very difficult, even under the most favourable conditions, to make a preparation showing the flagella of bacterium coli commune. 8. The coli bacterium gives the indol reaction with potassium nitrite, the typhoid bacillus does not.

NOTE ON THE COMPARATIVE VALUE OF THE FEHLING AND PHENYL-HYDRAZIN TESTS FOR SUGAR IN THE URINE.

By R. G. HEBB, M.D.

Some few months ago a discussion "on some common sources of error in testing for sugar in the urine" took place in the columns of the *Lancet*, the chief combatants being two distinguished urinologists. One was counsel for the side which maintains that there is always some sugar in normal urine, the other defended the view that the presence of sugar is to be regarded as pathological. The discussion drifted into a consideration of the value of some of the recognized tests for sugar. What was regarded by one side as final was looked on by the other as absurdly irrational. It seemed to me that it was made out that the presence of sugar in the normal urine was established, if certain tests were accepted as valid, and I mentally awarded a moral victory to that side. But although I felt constrained to accept the physiological doctrine, I felt none the less assured that in practice the presence of sugar in the normal urine might be regarded as a vanishing quantity and therefore neglected. Though I didn't at all care whether I had a physiological amount of sugar in my urine, I felt some alarm for the veracity of my tried and old friend Standard Fehling. I should have to cut him for the more gaudily named and newer acquaintance, phenyl-hydrazin. There is only one proof of sugar, and glucosazon is its name say Dr. Pavy (*Lancet*, July 14th, 1894) and Mr. Allen (*Lancet*, July 28th, 1894). While Sir G. Johnson, Dr. Pavy, and Mr. Allen discussed the momentous question in an academic sense, and every one felt that the remarks about fallacies, errors, traces of sugar, and such like were to be taken as platonic and Pickwickian phrases, Dr. Curnow (*Lancet*, August 4th, 1894)

made an attempt to bring phenyl-hydrazin into the region of practical clinical medicine. He tells of how Fehling had deceived him, and of the triumphant virtues of phenyl-hydrazin. Such a test as this, as rapid as delicate, is just the one we have been waiting for—the test of the millenium. It is obvious at once that this view of the question and of the test is not on all fours with that of Dr. Pavy. Here the practical value of phenyl-hydrazin is enlarged on. It is not only a delicate test but the precipitate comes down at once. It can distinguish glucose from uric acid and kreatinin.

Now my own experience of Fehling is that, bar physiological sugar, it is quite trustworthy and capable of distinguishing diabetic sugar from other precipitants, and that too in minute quantities. As far as quantity goes it is admittedly capable of detecting one-tenth of a grain of sugar per ounce of urine, while with a solution of invert sugar, as Mr. A. E. Tanner demonstrated to me, it is sensitive to $\frac{1}{1000}$ grain. By Fehling, I understand (1) the normal quantitative test solution, and also (2) a dilution thereof with distilled water until a blue colour is only just discernible.

My own experience of Standard Fehling has been this: with diabetic urine it almost invariably gives a canary-yellow precipitate, usually early, though sometimes late. To the character of this precipitate some weight should be attached because precipitants other than diabetic urine do not react in the same way. For example (taking of course only such substances as do or may occur in the urine, of which urea and hippuric acid may be put out of court at once, as they do not react at all to Fehling or to phenyl-hydrazin), uric acid, urate of soda, kreatinin, chloroform, salicylic acid, do not produce a precipitate which resembles the yellow deposit from diabetic sugar. With Standard Fehling the precipitate from uric acid, kreatinin, and chloroform is reddish-brown but of different hues. Salicylic acid urine, urates natural and artificial, bring down variable quantities of a dirty-olive-green precipitate. When very dilute Fehling is used the reaction colour from uric acid and chloroform is yellow. Even with pure glucose there is a difference, for with normal Fehling the precipitate is orange to brown, with dilute yellow.

And not only so but the manner of the reaction varies, that with diabetic urine is nearly always quick and easy; most other

precipitants are slow and seem to effect their purpose with a struggle; while with chloroform the reaction comes like a flash when it does come, but not till the solution is cooling down.

As a rule the precipitate from diabetic urine is early, but it may be late. If late it indicates a small amount of sugar, and almost always occurs when the specific gravity is low for diabetes, and this suggests the possibility that a late precipitate may account for the occasional disappearance from or overlooking of sugar in the urine in certain cases, and especially in warm weather. I think that will be enough to show that the so-called fallacies inherent to Fehling are much overrated, and that too little stress has been laid upon the characters of the precipitate.

With regard to phenyl-hydrazin, the chief point about it is this: Is it superior to Fehling in that it eliminates sources of error inevitable with Fehling? I have already indicated that though various bodies do reduce Fehling, yet there is sufficient difference in the character of the precipitate to prevent confusion. In return it must, of course, be ascertained whether any of the bodies which precipitate Fehling will do the like with phenyl-hydrazin. The assumption of some persons seems to be that of all bodies found in normal or abnormal urine, glucose is the only one which gives a precipitate with phenyl-hydrazin. If this be the case, then the phenyl-hydrazin test, if properly manipulated, is superior to Fehling.

The only way to work this test is to boil a sample of diabetic urine previously mixed with some phenyl-hydrazin hydrochlorate and some sodium acetate in a water-bath. The results from heating the mixture in a test tube over a spirit lamp for a few minutes are quite untrustworthy. About 2—3 drachms of urine, 2 grains of phenyl-hydrazin, and 3—4 grains of sodium acetate, are boiled together for about half-an-hour. If the test tube be removed from the bath and inspected when it has been boiling, say, 15—30 minutes, a pale yellow distinctly crystallin deposit may be observed. On removing some of this with a pipette and examining it under the microscope, the deposit will be found to consist of very long greenish-yellow acicular crystals,*

* The size of these crystals appears to be directly related to the amount of glucose present. I have also found that it is sometimes unnecessary to add sodium acetate to obtain glucosazon crystals from diabetic urine, certainly when the reaction is very acid.

having a tendency to arrange themselves in a fan or feather shape. They are often so long that under a Zeiss B they may stretch right across the field. When the solution has cooled down another kind of crystallin deposit appears. This is more copious and of a darker yellow colour. Under the microscope it will be found to be composed chiefly of spheroidal aggregates, each aggregate consisting of fine acicular crystals radiating from a common centre, thus giving the ball an echinus-like appearance. These striated echinus-balls vary much in size, though from the same sample they are usually of the same average diameter. The individual crystals usually taper towards the periphery, but they may be straight and occasionally club-shaped, so that the spherule looks something like an actinomyces grain. A third variety of crystallin deposit is granular or amorphous.

Thus there are three different classes of deposit to be obtained with phenyl-hydrazin from diabetic urine, and it should be especially noted that the first comes down at the temperature of boiling water. All these deposits I have obtained from urine of sp. gr. from 1017 to 1044, which gave the reaction with Fehling.

To compare with the foregoing I examined two different samples of glucose, and with very much the same results. There were differences, but they were slight or transitional, and could only be satisfactorily demonstrated by illustrations and not by verbal description. The reaction with lactose was of a very similar stamp, but the deposit was slight, and there were no long, straight crystals.

Kreatinin treated with the phenyl-hydrazin test also gave a deposit. This was scanty and late. The scantiness might (on the three occasions I tried it) have been due to the small amount at my disposal. To the naked eye it was granular and of a brownish-yellow colour. Under the microscope it consisted of amorphous granules and small spherules.

With uric acid the deposit is more copious, and was found to consist of granules, spheroidal crystals, well-marked fans and sheaves, and echinus-like balls. On one occasion large, flat, colourless parallelograms were also present, probably due to excess of uric acid.

By dissolving uric acid in an alkaline solution a copious

whitish deposit is thrown down on boiling. The supernatant fluid is yellow. The deposit is in great part amorphous, but there are also very large numbers of fine acicular crystals, the arrangement of which produces an appearance much resembling thistledown.

Normal urine will apparently always (I ceased to try after six consecutive positive results) give a precipitate with phenyl-hydrazin, but under the microscope it merely consists of very fine granules.

These results therefore show that the assumption that phenyl-hydrazin is a more perfect test for sugar than Fehling is untenable, and that similar objections can be raised against it as are urged against Fehling. In both cases there are precipitates from substances other than glucose, and in both cases a mere precipitate is not enough. The noun requires an adjective.

In considering the value of this test certain postulates must be agreed on. Is a precipitate in itself, and without reference to its character, to be regarded as decisive? Or if there be a precipitate, should it exhibit certain definite characteristics? It seems to be quite reasonable that the latter postulate should be accepted, and as an example of a representative case I will mention an experiment, one of several. Urine sp. gr. 1023, which gave the late reaction with Fehling, threw down a copious deposit with phenyl-hydrazin. A first microscopical examination failing to detect any glucosazon crystals, the deposit was boiled up again with absolute alcohol, and when cool re-examined. Then a very few quite small echinus crystals were observed, the rest of the deposit being fine granules.

The conclusion I have arrived at, from a long experience of Fehling, is that it is sufficiently delicate to detect sugar in the urine when pathological in quantity, and that in practice it is quite trustworthy and more convenient than the phenyl-hydrazin test. An academical or physiological quantity of sugar need not affect the medical man or his patient, but if with symptoms of diabetes a recently made Fehling's solution gives a canary-yellow precipitate, whether late or early, then, I think, the precipitate confirms the diagnosis.

I have, however, no wish to decry the phenyl-hydrazin test;

quite the contrary. As a test it is simple, elegant, and interesting, but it requires the use of a microscope, and as that instrument is not always available, it must be admitted that it is less convenient than Fehling. And if Fehling fulfil all the demands required of it, which I contend that it does, then the phenyl-hydrazin test is not requisite as a court of final appeal. Moreover, assuming the correctness of the academic view that sugar is always present in the urine, on that ground alone the phenyl-hydrazin test cannot be considered superior to Fehling, for the latter does not recognize physiological sugar, and neither the doctor nor his patient wants to be troubled about it.

SOME CASES OF INTEREST IN THE MEDICAL WARDS.

REPORTED BY A. M. GOSSAGE, M.B., M.R.C.P.

GENERAL DISEASES.—GROUP A.

Influenza, Orchitis.—A. G., aged 14, an office boy, was admitted under Dr. Donkin in September, 1893. His previous health had been good. Two days before admission he was attacked suddenly with headache and vomiting, followed by pain at the back of the neck and then general pains in the limbs. On admission he was very depressed and prostrate with a temperature of 104°F. There was a herpetic eruption on the upper lip. No physical signs of disease in the fauces, heart, lungs, or abdomen. The right testicle was much swollen and very tender; skin of scrotum red. He had not noticed anything wrong with his testicle before admission, and there was no history of local injury and no urethral discharge. After admission the temperature fell rapidly, reaching the normal on the evening of the next day. The patient improved rapidly and left the Hospital quite well a fortnight after admission.

GENERAL DISEASES.—GROUP D.

Acute Rheumatism, Pericarditis, Double Pneumonia, Chorea.—M. S., aged 13, a delicate-looking girl, was admitted under Dr. Donkin on September 24th, 1893. She had been an in-patient in the Hospital 4 years before with acute rheumatism. Three days before admission, she was attacked with pain over the front of the chest, and cough. On admission there was evidence of considerable pericardial effusion (absolute cardiac dulness up to the 2nd rib and to the mid-line of the sternum) and pericardial rubbing at the 3rd left inter-space. At the base of the left lung there was dulness to percussion and loud tubular breathing. There was

also considerable dyspnœa. After admission the dyspnœa became very great and for the first 10 days the patient was very ill. During this time the area of cardiac dulness extended as high as the clavicle and from the nipple line on the left to one inch to the right of the sternum, being pyramidal in shape. The heart sounds became muffled and distant, and the pericardial friction disappeared. The signs of consolidated lung remained permanent at the left base and signs of consolidation appeared at the other base. The temperature remained high, from 100° to 103° F. After October 4th the temperature gradually began to fall and the general condition of the patient to improve. On October 8th the signs of consolidated lung had disappeared at the left base, and a day or two later the physical signs also disappeared at the right base. On October 10th it was noted that the cardiac dulness had begun to decrease. On October 21st the temperature, which had been falling gradually for 17 days, became permanently normal. On October 27th, slight choreic movements of the face and hands were noticed, but otherwise the patient steadily improved. On November 11th there was a fresh rise of temperature, lasting 8 days, and associated with præcordial pain and fresh pericardial effusion. After this the patient rapidly got well. The choreic movements disappeared at the end of November. On December 16th she was discharged fairly well, at which time the cardiac dulness was only slightly increased upwards and not at all to the right: there was also a soft apical systolic bruit.

Splenic Anæmia.—CASE 1.—L. H., aged 7, school-girl, admitted under Dr. Donkin in April, 1893. It had been noticed that she was getting pale for a month before admission, during which time she had complained of pain and swelling of the abdomen. On admission there was marked anæmia. The spleen was very much enlarged, reaching to the level of the iliac crest. No enlarged lymphatic glands found. Heart and lungs normal. Blood pale in colour: red corpuscles 2,040,000 per cubic millimetre: no increase of white corpuscles. While in the Hospital she improved considerably. On discharge one month after admission the red corpuscles numbered 2,500,000 per cubic millimetre, and the patient had a much better colour. Treatment consisted in the administration of iron and arsenic.

CASE 2.—F. C., aged 3, a girl with a good family history, was admitted under Dr. Donkin in February, 1893. This child had always been yellowish in colour since the age of 3 months. Her mother first noticed a lump in her abdomen when she was 6 months old. During the 2 months previous to admission she had been getting much paler and the skin had been getting pigmented. On admission she was very anæmic. The anterior fontanelle was still slightly open: the head was square with a large prominent forehead: there was some beading of the ribs. The spleen was much enlarged, reaching nearly to Poupart's ligament. No enlarged lymphatic glands found. Lungs normal. Systolic murmur at 2nd left cortal cartilage: heart otherwise normal. Blood very pale: red corpuscles 1,190,000 per cubic millimetre: no increase of white corpuscles. Temperature slightly raised: 100° to 101° F. While in Hospital she improved considerably, becoming less anæmic. Red corpuscles after 6 weeks' stay were 1,990,000 per cubic millimetre. Treatment consisted in the administration of iron and arsenic.

Pernicious Anæmia.—CASE 1.—F. T., aged 30, a blacksmith, was admitted under Dr. Donkin on May 27th, 1893. He had been a temperate man, who had always lived well and enjoyed excellent health previously. There was no history of shock or fright previous to the onset of his illness. He was first attacked with frontal headache at Christmas, 1892, and after this began to grow weak and pale, with shortness of breath and palpitation on exertion. The headache lasted about 2 months but the other symptoms steadily increased in severity up to admission. He had had occasional attacks of hæmorrhage from the gums. His appetite had remained good throughout and he had not wasted. On admission he was a big, muscular-looking man, but extremely anæmic. Nothing abnormal was found on examination of the lungs or the abdomen. A soft systolic murmur was audible all over the cardiac area, loudest towards the base, and there was a venous hum in the neck: heart otherwise normal. There were some flame-shaped hæmorrhages in the left retina. The blood was very pale in colour: red corpuscles only 970,000 per cubic millimetre: no increase of white corpuscles. After admission he was treated by the internal administration of arsenic, and subsequently, as he did not improve, by rectal injections of a mixture

of fresh ox-blood and normal saline solution; b. naphthol being given by the mouth. No improvement in his condition took place, and when he left the Hospital on August 19th, 1893, his general health was much the same as on admission, and the number of red corpuscles per cubic millimetre of blood had fallen to 610,000. The blood was examined frequently, the number of red corpuscles showing a progressive decline. There was no marked alteration in the shape of the corpuscles. During his stay in the Hospital his temperature frequently rose to 101° or 102° F. without his feeling any discomfort, falling again to normal after a few hours.

CASE 2.—D. C., aged 40, a collector, admitted under Dr. Donkin on May 10th, 1894. He had always lived well and had had plenty of good food. His previous health had been good except for occasional attacks of dyspepsia. He had had periodically bad headaches, followed by an offensive dark discharge from the left ear with disappearance of the pain. There was no history of alcoholic excess, nor of any mental distress. Nine months before admission his appetite became poor, and he gradually became weak and languid, and 4 months later he began to become pale, to get short of breath on exertion, and to waste. Four weeks before admission he was attacked with vomiting, chiefly in the morning, and became much weaker and paler. At this time his speech became hesitating, but his memory remained good. On admission he was fairly well nourished, but very anæmic. There was marked hesitation in his speech; no impairment of memory or intelligence. The lungs were normal. The heart was normal, except for a systolic murmur, loudest at the base. The blood was pale in colour; the hæmoglobin 50 per cent. of normal; the red corpuscles 1,290,000 to the cubic millimetre; no increase in white corpuscles. The red corpuscles were very various in size, and several were altered in shape. There were a few hæmorrhages in the retinæ of both eyes. For the first fortnight of his stay in the Hospital he had frequent severe vomiting and seemed to get weaker, but afterwards the vomiting ceased and he regained his strength, putting on 6 lbs. in weight. Treatment: ferri et ammon cit. gr. viii., liq. arsenicalis ♏ iv., three times a day. He was discharged on June 6th, when the hæmoglobin was 50 per cent. of normal, and there

were 1,330,000 red corpuscles in a cubic millimetre of blood. On September 28th his general health was about the same, but there were only 1,000,000 red corpuscles per cubic millimetre of blood.

CASE 3.—A. L., aged 51, a housewife, was admitted under Dr. Donkin, on April 21st, 1894. She had had rheumatic fever 12 years before admission, and enteric fever 14 years before. Otherwise she had enjoyed good health up to August, 1893, when she began to get weak and to suffer from abdominal pain after food, with frequent vomiting. At this time also her menopause took place. There was no history of any special mental distress. The above symptoms increased in severity up to admission, and she became very pale. In January, 1894, she had a severe attack of epistaxis. On admission she was rather thin and very anæmic. Her skin was yellowish in colour, with much diffuse brownish pigmentation. There was no jaundice. The lungs were normal. There was a systolic murmur heard at the apex of the heart. The edge of the liver was 2 inches below the costal margin. Examination of the blood showed no increase of white corpuscles, and there were 1,200,000 red corpuscles in a cubic millimetre. The case was suspected to be Addison's disease. After admission she had frequent attacks of vomiting, bringing up on some occasions altered blood; she had also frequent attacks of epistaxis. After May 4th the vomiting ceased, and she rapidly improved in strength, and her colour became much better. On May 11th she had an attack of abdominal pain, followed by slight jaundice. The improvement, however, still continued, and she was discharged on July 20th. The red corpuscles were then 2,320,000 per cubic millimetre of blood. The treatment consisted in the internal administration of iron and arsenic. On September 6th she was readmitted, having become steadily weaker and paler since leaving the Hospital. No increase of pigmentation of the skin had occurred. She was very prostrate and extremely anæmic, with a temperature of 102°. She had severe abdominal pain and frequent vomiting. The lungs were normal. There was a systolic murmur at the apex of the heart. There was no enlargement of the liver. The retinæ were normal. There were 1,080,000 red corpuscles per cubic millimetre of

blood. No increase of white corpuscles. Up to September 20th the temperature varied from 99° to 101°, but after this was normal until September 26th. On September 26th the vomiting became more severe, and the temperature fell to 95°. There was blood occasionally in the vomit. She died on September 28th from asthenia. At the post-mortem examination by Dr. Hebb (P. M. Register, vol. viii., No. 368) all the viscera were found to be very pallid, but otherwise normal, including the adrenals and semilunar ganglia. The thyroid was atrophied. The gall-bladder was full of numerous black calculi.

Diseases of the Nervous System.—Brain.

Tumour of Pons.—F. T., aged 33, a porter, was admitted under Dr. Donkin in March, 1893. One sister had died of phthisis, otherwise his family history was good. His previous health had been good and there was no history of his having had syphilis. Two years before admission, a fortnight after recovery from an attack of influenza, he was suddenly attacked with weakness in the right ankle, causing him to fall to the ground. He was, however, able to get up and walk home unaided. Three days after this the right arm became powerless, and he was unable to stand on the right leg; at the same time there was some loss of sensation in these parts. This condition lasted for 12 months, during which time the right hand became spasmodically closed. Then the paralysis of the right side suddenly disappeared and the left arm and leg were attacked; there was total loss of power and sensation in the left arm, but the left leg was only slightly affected. Eight weeks before admission the vision of the right eye became defective, and the patient became unable to open the eye. On admission he was found to be a well-nourished man. There was some general loss of facial expression, rather more marked on the left side. There was right ptosis, and he could only move the right eye downwards and outwards, all the muscles but the superior oblique being paralysed. The right pupil was larger than the left and did not react to light or accommodation. Movements and reflexes of left eye normal. Vision in right eye indistinct; in left eye normal. The optic discs were both pale and opaque, with well-defined edges. The muscular power in the right arm was good, but there was some rigidity and tremor

on forcible extension of the elbow. Weakness and rigidity of all the muscles of the left arm; the rigidity could be overcome slowly; no wasting; some impairment of sensation over left hand and arm. There was some weakness in the muscles moving the right knee joint; right foot in position of extension; some rigidity of both knee and ankle joints. The left leg was apparently normal. No wasting of the muscles of legs. The knee jerks were very active, especially the right; there was also ankle clonus, more marked on the right side. The tendon jerks in the arms were also increased, especially in the left arm. There was brown mottling of the skin over both patellæ, more marked on the right side. No abnormal physical signs in the thorax or abdomen were present. This patient remained in the Hospital for 2 months, and on discharge was in much the same condition as when admitted.

Diseases of the Nervous System.—Cord.

Acute Myelitis.—Case 1.—G. W., aged 30, a fireman, was admitted under Dr. Donkin in July, 1893. His previous health has been good until 18 months previous to admission, when he had contracted syphilis. Ten days before admission he was suddenly attacked with pain and numbness in the right leg, these symptoms subsequently passing away completely. Next day, however, he was attacked with pain and numbness in both legs, followed during the next 3 days by increasing loss of power in the lower limbs, and 2 days later still by incontinence of urine. On admission there was complete paralysis of both legs, including movements of the hip joints. Occasional spasmodic jerking of the legs took place. Sensation to pain, touch, heat and cold normal, but there were frequent shooting pains down the lower limbs. No wasting. Knee jerks very active: no ankle clonus. There was complete loss of control over the bladder, the urine flowing away at intervals. The patient was conscious of the occurrence of micturition though he was unable to control the act. There was a small bed sore over one buttock. There was no paralysis in any other part of the body, and no evidence of disease in thorax or abdomen. After admission the knee jerks disappeared for a time, but soon reappeared again, and then the patient gradually obtained some voluntary power

over the lower limbs and control over micturition. The legs, however, became rigid, and the attacks of spasmodic jerking more and more frequent. On leaving the Hospital 3 months after admission he presented a typical picture of spastic paraplegia, with marked rigidity of the legs, increased knee jerks and ankle clonus. He was, however, able to walk about with sticks, and he had recovered complete control over micturition.

CASE 2.—W.C., aged 41, a hatter, was admitted under Dr. Sturges on April 14th, 1893. He had enjoyed good health up to the end of Feburary, 1893, and had never had syphilis. At that time he got wet through on two occasions, and shortly after was attacked with pains in the lumbar region, and aching pains in the thighs and calves, followed by a feeling of weakness. On March 25th the pains grew much worse, and he became unable to pass his water, having to have a catheter passed. The legs then rapidly became weaker, so that on March 27th he was unable to stand. There was also some difficulty in defæcation. On admission he was just able to walk with a feeble and shuffling gait. Knee jerks were much increased and there was marked ankle clonus. No anæsthesia. Complete retention of urine, the urine always requiring to be drawn off by catheters. Some swelling of the scrotum. No evidence of disease in thorax or abdomen. After admission he improved rapidly, and on his discharge on May 4th he could walk much better, and was able to pass his water without a catheter, though with considerable difficulty.

Divers' Palsy.—J. B., aged 38, a diver, was admitted under Dr. Donkin in December, 1893. He had been a heavy drinker, chiefly of spirits, for many years. He was first attacked with paralysis 14 years before admission, again 10 years before, and again 5 years before. On each occasion the attack came on within 20 minutes of leaving the water, and lasted for 2 or 3 weeks, weakness of both legs being the main symptom. The present attack began 20 minutes after leaving the water, 5 weeks before admission. The patient noticed weakness of the legs and numbness of the legs and hands, and these symptoms had been gradually getting worse up to time of admission. During this time he had been drinking heavily. On admission he was suffering from a slight attack of delirium

tremens. There was considerable loss of power in the lower limbs, so that he had great difficulty in walking, dragging his legs after him. No loss of sensation was made out, but he stated that at times he seemed to loose sensation in the soles of his feet, and that he had occasional attacks of "pins and needles" in his hands and face. There was no wasting. The knee jerks were brisk, and there was no ankle clonus. He had some difficulty in micturition. Heart and lungs were perfectly normal. While in the Hospital he improved considerably, leaving of his own accord at the end of 10 days.

Diseases of Nervous System.—Various.

Chorea. Acute Mania.—T. B., aged 21, a housewife, was admitted under Dr. Sturges, on March 8th, 1893. There was a strong family history of rheumatism, and one of her brothers had had chorea. She had been an in-patient in the Hospital with rheumatic fever in December, 1892. Was married at Christmas, 1892. She was quite well up to 2 months before admission, when she was frightened by seeing a child choking. She was after this attacked with uncontrollable movements of the left foot, followed later by similar movements of the left arm, the right arm and leg, and then the face. The speech then became affected. During the 2 weeks just preceding admission the movements became very much worse. She had not menstruated since commencement of illness. On admission she was quite rational. There were violent choreic movements all over the body, rendering her unable to walk, but she could manage to feed herself. The heart was quite normal. After admission the movements rapidly became worse, and the next day she became maniacal. On discharge from the Hospital a fortnight later the movements were still very violent, and she was still in a condition of acute mania.

Diphtheritic Paralysis.—H. B., aged 22, a fitter, was admitted under Dr. Donkin in September, 1893. He had an attack of diphtheria 3 months before admission. One month after the diphtheria he noticed that his food regurgitated through his nose, and that his eyesight became so defective that he was unable to read. A fortnight later he was attacked with numbness and weakness of the feet and legs and after another

fortnight of hands and arms. On admission there was weakness in both arms and legs and some dulling of sensation in hands and feet. The knee jerks were absent. The movements of the soft palate were considerably impaired. The pupils reacted well to light and accommodation, but the patient still had considerable difficulty in accommodating for near vision, so as to read, &c. The movements of the diaphragm were much impaired. The heart action was feeble, rather rapid and uneven: the first sound of the heart was very weak. After admission he improved rapidly and left after a 3 weeks' stay, nearly well, there being still some slight weakness in arms and legs.

Lead Poisoning. Peripheral Neuritis.—E. C., aged 48, a temperate married woman, was admitted under Dr. Donkin in August, 1893. There was no reason to suspect her of being syphilitic. There was nothing in the history to show how she had become poisoned by lead, and she had never had an attack of colic. She was in good health up to 2 months before admission, when she was attacked by pains all over, more marked on the right side than on the left. This was followed a month later by gradual loss of power in the extremities, beginning in the right arm, then affecting the left arm, then the right leg, and lastly the left leg. On admission she was anæmic, and had a marked blue line on the gums. The lungs were rather emphysematous, but otherwise the thorax and abdomen were normal. The muscles of the forearms, arms, legs and thighs were weak and wasted, were all tender to the touch, and showed the reaction of degeneration when stimulated by electricity. The muscles of the hands were less affected than those of the arms, and on stimulation of the nerves, the ulnar nerves gave a better reaction than the musculo-spinal or median nerves. The knee jerks were brisk. The trunk muscles were quite normal. Urine normal.

She was treated by stimulation of the affected muscles by the faradic current. The improvement in her condition was rapid, the muscular pain and tenderness decreasing, and the muscular power increasing. On discharge after a month's stay the reaction of degeneration was everywhere less marked.

Peripheral Neuritis.—CASE 1.—J. K., aged 35, a police con-

stable, was admitted under Dr. Donkin in May, 1893. He had previously served as a soldier, and was a heavy drinker. His health had been good up to 11 months before admission, when he had an attack of pleurisy, and he had not felt well since, and had wasted. During the 6 weeks previous to admission, his legs had swelled and become very weak. On admission there was considerable weakness of all muscles below both knees; gait was weak, not ataxic. Knee jerks were absent. Grip of both hands was very weak. No marked wasting of the muscles; there was, and had been, no pain or tenderness in the muscles. Sensation unimpaired. There was considerable œdema of legs and back. Heart normal. General bronchitis in the lungs. Urine normal. While in the Hospital he improved rapidly. The œdema soon disappeared, and the bronchitis cleared up. After staying in the Hospital a month he was discharged, a considerable return of power having taken place in both arms and legs.

CASE 2.—G. G., aged 4½, was admitted under Dr. Sturges in December, 1893. His family history was good, and there had been no recent diphtheria among his family or neighbours. He had always had a discharge from the left ear up to 6 weeks before admission, but had had no other serious illness. He had not had a sore throat. Seven days before entering the Hospital he complained of headache and was feverish; he had anorexia, and his bowels were constipated. He rapidly became very weak, and on admission to the Hospital he was unable to either stand or sit. The muscles of the limbs and trunk were then flabby and weak, especially the neck muscles. The knee jerks were abolished. There was apparently some ataxia in his gait when he attempted to walk with assistance. Sensation was not affected. He had no difficulty in swallowing. He improved rapidly with rest, and left the Hospital quite well after less than a month's stay.

CASE 3.—J. A., a ship's steward, aged 49, was admitted under Dr. Donkin on January 18th, 1894. His previous health had been good, and he had never had syphilis. For several years he had been accustomed to drink large quantities of spirits. In November, 1893, he noticed tingling sensations in his hands and feet, which were followed by gradually increasing weakness in the extremities. There was no pain. His memory then

began to fail rapidly. On admission he was intelligent, but was quite unable to remember recent events, and could only give a very vague history of his illness. He was quite unable to stand or even to sit upright. There was great loss of power in the limbs, this being most marked below the elbows and knees. The fingers and wrists were flexed and the ankles extended. He was quite unable to pick up objects with his fingers. The muscles below the elbows and knees reacted very much less readily than normal with the faradic current, while with the galvanic current there was well-marked reaction of degeneration, this being most noticeable in the intrinsic muscles of the hands and feet, the extensors of the wrists and flexors of the ankles. Tactile sensation was much less acute than normal below the elbows and knees, and the patient could not readily distinguish between heat and cold. Sensation was more affected in the lower than in the upper extremities. There was a feeling of constriction at the wrists and ankles. The heart and lungs were quite normal. After admission he at first became weaker, but then began to improve. He was treated by faradic stimulation and rubbing of the affected muscles, and steadily but slowly regained power and sensation. At the same time his mental condition also improved. In the early days of his stay in the Hospital he occasionally passed his urine and fæces into the bed. On his discharge, on May 28th, he could walk and use his hands fairly well, though there was still some wrist-drop. He was bright and intelligent, but still had a very vague recollection of the commencement of his illness. The improvement still continued for 2 or 3 months after discharge, after which he was lost sight of.

Hystero-epilepsy.—E. H., a girl, aged 17, was admitted under Dr. Donkin on September 22nd, 1893. There was a strong family history of phthisis in the father's family, but the father himself was healthy. There was no family history of insanity or "fits." The patient herself had enjoyed good health up to 3 years before admission, when she had several attacks of "biliousness," in each of which she complained of sore throat and inability to swallow. Soon afterwards she was attacked with a fit, in which the eyes turned to the left, the mouth was drawn over to the left, the face was flushed, and the hands

clenched, followed by her turning round and falling towards the left side. After this she had several similar fits. About a year after the first onset she had what was described as a hysterical fit, in which she screamed and struggled and had to be held down. In these fits she never injured herself, and never passed her urine unconsciously. Just previous to admission she had several fits of both kinds. On September 19th she became noisy, and then gradually became unconscious. During the 3 years previous to admission she had suffered, according to her mother's statement, from occasional attacks of paralysis affecting the left side of the face, the left arm, and the left leg from which she subsequently recovered completely. Her mother thought that on one or two occasions the right side had been affected and not the left, but was not sure. The mother could give no very definite information as to the connection of the fits with the paralysis. On admission the patient was found to be a well-nourished girl, looking much younger than her stated age. There was no sign of puberty about her, and she had never menstruated. She was semi-unconscious and would not speak. The left side of the face and left arm were completely paralysed and apparently anæsthetic. There was no wasting. The heart action was rather uneven, but otherwise there was no sign of disease in the heart, lungs, or abdomen. After admission she had several fits, each lasting about 10 minutes. In the only one of these observed from the commencement, the fit started by the corner of the mouth being drawn to the left, followed by tonic contraction of the left orbicularis palpebrarum, turning of the head and eyes to the left, and then clonic spasms in the same muscles. The optic discs were quite normal. She was treated with full doses of bromide of potassium, after which the fits ceased and the paralysis gradually disappeared. On her discharge on November 11th she seemed quite intelligent, and there was no trace of paralysis in the left arm and left side of the face. After discharge her health remained good up to December 27th, 1893, when she complained of pain and numbness spreading up the left leg and thigh and extending to the left hand, followed by loss of power in the parts affected. The next day she complained of aching in the right leg, extending up the thigh, and then to right arm and right cheek, followed by loss of power in these parts, and

then gradual improvement of the left side. In the afternoon of this day she vomited and complained of headache, and then gradually became stupid. She had no fits. She was readmitted on December 30th. On admission she was very dull and stupid, and would only answer "Yes" and "No" to questions. There was some loss of expression on the left side of the face, and some paralysis of the right arm. On January 2nd she was more stupid, and there was complete paralysis of the right arm and right side of the face. No paralysis of the left side or of either leg. There was general dulling of sensation more marked on the right side than on the left, and complete anæsthesia over the right arm. The knee jerks were brisk and the tendon jerks brisker in the right arm than in the left. The pupils were dilated and reacted well to accommodation, but rather sluggishly to light. There was no oculo-motor paralysis. The optic discs were normal. The heart and lungs were normal and the urine was normal. Up to January 13th she remained in much the same condition. She had frequent fits, starting with tonic spasms followed by clonic spasms; one night she had as many as eighteen fits. These fits varied a good deal in detail, sometimes the right side of the face and right arm being alone affected, sometimes both sides of the face; a few fits were general. All the fits started in the face. During the fits her face was congested and she was quite unconscious; on one occasion she micturated during a fit. On January 13th she was given ammon. brom. gr. xx. three times a day, after which she had only two fits, and rapidly improved mentally and physically. By January 22nd there was no sign of paralysis, and she was fairly intelligent. She was discharged on February 14th quite well.

Hysteria.—CASE 1.—E. C., a female school-teacher, aged 21, was admitted under Dr. Donkin on January 22nd, 1894. Her family history was good, except that once her mother had lost the use of one arm and one leg for a week. At the age of 9 she was laid up for 12 months through an injury to the back. At the age of 16 she was treated with the electro-cautery for a feeling of swelling in the laryngeal region, after which she lost her voice for 12 months. In September, 1892, she was attacked with epigastric pain and vomiting after food. In

April, 1893, she was an in-patient. She was then anæmic and was supposed to have a gastric ulcer. For two years before admission her bowels had only been open after enemata. Seven weeks before admission she was attacked with severe pain all down the right side of her body, and with loss of power in the right leg. This pain was worse in paroxysms, and at the height of the paroxysms she used to lose power in the right arm. On admission she was found to be well nourished, not anæmic and very emotional. The heart and lungs were normal. There was some loss of tone in the vocal cords, but the larynx was otherwise normal. There was hyperæsthesia all down the right side of the trunk and in the right limbs. No anæsthesia. There was complete loss of power in the right leg below the knee; the muscles being flaccid and rather wasted. The right leg was very tender. The knee jerks were normal. The electrical reactions were normal. She was treated by faradisation of the abdomen and the affected leg. The latter recovered power, and in 10 days she could walk quite well. She still, however, required enemata.

CASE 2.—D. L., a single woman, aged 41, was admitted under Dr. Sturges on September 4th, 1894. Her father had died in a fit and her mother was stated to have been hysterical. She was brought to the Hospital, as she had been noticed to be constantly coughing and to be apparently very weak during service in the Abbey. On admission she would only give her name, and complain of pain in the throat and chest. After admission she did not speak for 4 days, refused to swallow and had to be fed through the nose. She passed her urine once in the bed, but afterwards used the utensils supplied her, though she did not ask for them. Sensation was much dulled all over, only very strong or sudden stimuli causing any response. The eyes were both turned up and rotated slightly outwards. The respirations were laboured, and while under observation she did not use her diaphragm at all, the respiration being entirely carried on by the elevation of the chest. She had constant cough, bringing up profuse mucous expectoration with great difficulty. The larynx was normal. The pulse was 76, of good volume and tension. No abnormal physical signs in the heart or lungs. She slept well, and during sleep the breathing

was apparently normal. On September 8th she had an attack of severe abdominal pain and diarrhœa, after which she spoke in whispers and swallowed naturally. On laryngeal examination the cords were observed to be quite motionless, merely flapping to and fro with respiration; when she coughed, however, the glottis opened widely for the preliminary inspiration and then closed. Her friends, when found, stated that she had had several similar attacks previously; that she frequently had aphonia, and would sometimes for weeks together refuse all food, feeding herself in secret. On one occasion she had all her front teeth removed as she said she could not swallow. She was very religious, her pockets being full of religious literature. She was discharged on September 18th, when she still refused to walk, and still had aphonia.

Diseases of the Circulatory System.

Congenital Morbus Cordis.—Eliza H., aged 34, was admitted under Dr. Donkin in December, 1893. Her health had been good up to 9 years before admission. She then, after severe exertion, felt something give way in her chest, and after this, gradually became blue and suffered from shortness of breath. She had occasional attacks of very severe dyspnœa, in which she became very cyanosed. During such attacks she was several times an in-patient in the Hospital in the years 1891, 1892, and 1893, under Dr. Sturges and Dr. Donkin. On admission on these occasions the physical signs of extensive bronchitis were found. The apex beat of the heart was in the normal position, and the heart was slightly overlapped by lung. The heart sounds, as a rule, were perfectly normal, but sometimes a low-pitched systolic mumur was heard at the apex being conducted slightly towards the axilla. The abdomen was normal. The urine was normal. There was no clubbing of the fingers. Temperature on every occasion was normal. After admission she always improved rapidly with rest in bed, and left the Hospital after staying 2 or 3 weeks with only slight cyanosis and dyspnœa, and with very slight signs of bronchitis. The present attack was precisely similar to the previous ones. No murmur was heard. She was readmitted again a fortnight after leaving the Hospital with bronchitis and cyanosis. On this

occasion a loud systolic bruit was constantly heard, loudest at the bottom of the sternum; she left in her usual health after 3 weeks' stay. This case was considered to be one of congenital heart disease, in which compensation had failed for the first time after severe exertion, when the patient had already reached adult life.

Cardiac Infrequency.—J. O., aged 16, a printer, was admitted under Dr. Sturges in June, 1893, for tonsillitis. The temperature on admission was 99·4° F., and rapidly fell to normal with disappearance of pain and discomfort. Throughout his stay in the Hospital, 10 days, the pulse rate, which was frequently taken, was always between 48 and 56.

Diseases of the Respiratory System.

Phthisis: Hæmoptysis.—C. K., aged 26, a librarian's assistant, was admitted under Dr. Donkin on November 2nd, 1892. He had a good family history and a good previous personal history. Six months before admission he had coughed up a few mouthfuls of blood. For three weeks previous to admission he had had some slight blood spitting every day. On admission his temperature was 103° F., but after two days became normal. Except a few crepitations under the left clavicle there were no abnormal physical signs. On the evening of the day of admission he had a severe attack of hæmoptysis, bringing up a pint of blood: he was given ⅓ gr. of morphia hypodermically, and subsequently tinct. digitalis ♏ v, in camphor water three times a day. The sputum was stained with blood up to November 11th. There was a good deal of pain under the left clavicle relieved by a blister. The crepitations at this spot became more marked. No tubercle bacilli were found in the sputum. On November 15th he got up for the first time. November 29th, hæmoptysis ℥ viii. December 1st, hæmoptysis ℥ xviii, after which the patient fainted and remained unconscious for 3 hours, but subsequently revived. He was ordered tinct. digitalis ♏ x, and extract ergot. liq. ♏ xx, in water three times a day. The bowels were very constipated, but acted after pil. coloc. co. gr. x. December 2nd, very severe vomiting. He was unable to retain anything in the stomach, and was fed by nutrient enemata. December 3rd, hæmoptysis ℥ ix. He was

almost frenzied with fright, but became quiet after the administration of $\frac{1}{8}$ grain of morphia hypodermically. The temperature rose to 103° F., but fell to normal again next morning. The vomiting still continued. The patient was quite blanched. After this the patient steadily improved, gaining strength and colour. He had attacks of hæmoptysis on December 7th, ℥ vii, and on December 20th, ℥ viii, but there were no serious symptoms after them. He left the Hospital on January 13th, 1893, having had no attack of hæmoptysis for 3 weeks. During the next 18 months he was seen frequently as an out-patient. The physical signs at the left apex became more definite (impaired resonance and bronchial breathing at apex and crepitations all over the upper lobe), but there was no extension of the disease to other parts of the lungs. His general health remained good, and he was able to do his work. He had no further severe attacks of hæmoptysis.

Phthisis: Pneumo-thorax.—H. A., aged 19, an office boy, was admitted under Dr. Donkin on May 4th, 1893. His father had died of phthisis. He was quite well up to June, 1892, when he had cough and pain in the chest; he attended at Brompton Hospital, where he was told that he had consumption. He was admitted to Westminster Hospital in August, 1892, for hæmoptysis. There were then signs of slight infiltration at both apices. After his discharge he remained fairly well up to the day of his readmission. He then, while dressing himself, felt a sharp pain in the left side, and had great difficulty in breathing. On admission there were signs of consolidation at the right apex. The left side of the thorax was bulged, motionless, hyper-resonant to percussion, and over it the breath-sounds were inaudible; metallic tinkling could be heard, and the bruit d'airain obtained. The heart was displaced so as to lie to the right of the sternum. There was considerable dyspnœa. After admission the patient improved rapidly, and the dyspnœa got much less. On May 10th the breath-sounds could be heard over the left chest, and on May 30th these were much clearer, but the left side of thorax was still hyper-resonant to percussion, and the heart was still displaced to the right of the sternum. He was discharged on May 30th. He was seen again on October 25th, 1893, when the signs of pneumo-thorax had completely disappeared, and the

heart was in its normal situation. There were signs of excavation in the right upper lobe, and of consolidation in the left upper lobe. The patient himself was feeling fairly well, and was doing his work.

Diseases of the Digestive System.

Quinsy: Purulent Otitis.—J. W., aged 2 years and 8 months, was admitted under Dr. Sturges on September 14th, 1893. He was taken ill 4 days before admission with sore throat and abdominal pain. On admission the right tonsil was much enlarged and red; great tenderness at the angle of the jaw. The left tonsil was normal. Thorax and abdomen were normal. On September 15th the tonsil was incised and a fair quantity of pus let out. The operation was repeated on September 16th. On September 18th a purulent discharge from the right ear appeared. After this the temperature fell, and the child rapidly improved. On his discharge on September 25th there was no aural discharge, and the tonsil was of normal size.

Diseases of the Skin.

Herpes.—J. G., aged 21, carman, was admitted under Dr. Donkin on July 5th, 1893. He was attacked suddenly on July 2nd with pains in the back. A profuse crop of herpes appeared round the mouth on July 4th. On admission the temperature was 101·8° F. The fauces were normal. No physical signs of disease in the chest. Profuse crop of herpes round mouth. The temperature quickly fell to normal with sweating, and remained normal. The patient, however, remained rather prostrate, and his convalescence was slow. He left the Hospital quite well on July 16th. He had had a similar attack 2 years before, at which time most of his family were also attacked. (*Vide* Westminster Hospital Reports, vol. vii., p. 107, Case 1.)

Note.—The headings to above Cases refer to the Registrar's report.

CASES OF INTEREST OCCURRING IN THE SURGICAL WARDS.*

REPORTED BY PHILIP R. W. DE SANTI, F.R.C.S.

(A) *Strangulated Inguinal Hernia.*

BETWEEN January 1st, 1894, and October 1st, 1894, there were seven cases of strangulated inguinal hernia—five males and two females. In three cases herniotomy was performed, one was relieved by the local application of the ice bag, and two were reduced under taxis in the hot bath, and one by taxis in the Surgery. There was one fatal case. In none of the cases was a family history of hernia obtainable.

No. 1. John C—, aged 19, admitted May 26th, 1894, with a strangulated right inguinal hernia.

History, &c.—Patient was playing the flute when suddenly the hernia came down, and he was unable to reduce it; vomited shortly afterwards and had great pain. This occurred May 25th. Bowels did not act after the descent of the hernia. When 10 years old had a right inguinal hernia which became strangulated, but was reduced by taxis; similar condition 1½ years later, and again when 16 years old, when he was admitted to Westminster Hospital under Mr. Davy and operated on, sac being opened, and subsequently left; did not wear a truss after the operation. May 26th, herniotomy; sac, which was very thick and adherent to surrounding tissues, was opened and found to contain a knuckle of small intestine moderately congested; this was reduced, sac ligatured and cut off, and pillars of canal sutured. Bowels were open May 30th after an enema; wound healed by first intention. Patient discharged July 4th, 1894; not ordered

* From January 1st, 1894, to October 1st, 1894

to wear a truss.—*Surgeon*, Mr. Cowell. [This patient has returned October 7th, 1894, with hernia down again and symptoms of strangulation.]

No. 2. Francis R—, aged 62, admitted February 17th, 1894, with a strangulated left inguinal hernia.

History, &c.—Left reducible scrotal hernia for twenty years; three days before admission it became irreducible, and patient had fæcal vomiting and constipation; this continued up to date of admission. When admitted found to be very collapsed; temperature 95°; fæcal vomiting; in left side of the scrotum a hard tense swelling extending up the inguinal canal, no impulse on coughing. Operation performed at once; sac opened, and found to contain a small piece of gut, which was claret coloured, and a large quantity of congested omentum; gut and omentum reduced, sac closed, and wound stitched up and dressed antiseptically. Patient died six hours later collapsed.

P.M.—On opening the abdomen a piece of the upper half of the ileum about ten inches long is found to be of a bluish colour from congestion of its coats, there is also on it a very slight furrow due to nipping; no peritonitis; lungs emphysematous and œdematous; bases friable.—*Surgeon*, Mr. Macnamara.

No. 3. M. C—, male, aged 30, admitted July 7th, 1894, with strangulated inguinal hernia.

History, &c.—Reducible right inguinal hernia for five years; used to wear a truss occasionally, and was wearing one when the hernia came down and became strangulated; he suffered severe pain, and vomited frequently; he consumed before admission (six hours after strangulation) a pint-and-a-half of whisky, half-a-quartern of brandy, some vinegar, mustard and pepper, and some medicine he got at a "drug store." (Patient is an Irish American.) On admission there was a well-marked right inguinal strangulated hernia, and patient was suffering from fæcal vomiting; hot bath, opium and taxis tried but failed; herniotomy performed; sac opened, and found to contain a knuckle of small intestine tightly nipped; it was very dark but shiny; very little fluid in the sac; the stricture was divided, gut reduced, sac left, and pillars of canal sutured together; wound healed by first intention. Discharged July 26th, wearing a new truss.—*Surgeon*, Mr. Cooke.

No. 4. Emily L—, aged 29, admitted April 20th, 1894, with a strangulated right inguinal hernia.

History, &c.—Patient was straining to lift a weight and was suddenly seized with acute pain in right groin, she then noticed a hard painful lump the size of a pigeon's egg in the right labium, a quarter of an hour later she vomited and had severe "colicky" pains in her abdomen; she came to the Hospital within 1½ hours of first appearance of hernia. In right labium is a hard painful swelling; no impulse on coughing and dull on percussion; patient put into a hot bath, and part of hernia reduced with a distinct gurgle; ice bag ordered, and hernia had entirely disappeared by the morning. Bowels open on April 22nd after an enema. Discharged April 23rd, 1894; ordered to wear a truss.—*Surgeon*, Mr. Macnamara. (*Vide Case* 5.)

No. 5. Emily L—, aged 29, admitted June 10th, 1894, with a strangulated right inguinal hernia.

History, &c.—Patient was an in-patient in April, 1894 (see Case 4 above), with similar condition; on her discharge she was given a truss but did not wear it. On sudden exertion the hernia came down, and she had very severe vomiting and pain; she came at once to the Hospital, and the House Surgeon with some difficulty reduced the hernia in the Surgery. She was discharged June 16th, 1894, and told to be very careful to wear her truss in future.—*Surgeon*, Mr. Cowell.

No. 6. Charles M—, aged 21, admitted June 5th, 1894, with a strangulated left inguinal hernia.

History, &c.—Patient has had a rupture for years, but it has always been reducible. On June 5th on sudden exertion it came down into the scrotum, and could not be reduced; he had slight vomiting of bile-stained fluid and some pain in and around inguinal region; he did not pass any flatus subsequent to descent of hernia. A tense resonant tumour occupied the left inguinal and scrotal regions; testis easily felt, no impulse on coughing. Put in hot bath, and hernia reduced by taxis (6 minutes). Discharged June 8th, 1894; ordered to wear a truss.—*Surgeon*, Mr. Macnamara.

No. 7. Francis F—, aged 54, admitted July 31st, 1894, with a left strangulated inguinal hernia.

History, &c.—Reducible hernia for 30 years; at 2 p.m. on July 31st the hernia suddenly came down, and patient was unable to reduce it as usual; there was great pain in the tumour and the abdomen, and a feeling of sickness but no actual vomiting, no fæces or flatus passed after the descent of the hernia. Admitted at 8 p.m. same day with a tender left scrotal hernia, dull on percussion, with no impulse on coughing, and irreducible; taxis tried but failed; hot bath and ½ a drachm of tr. opii ordered, and taxis again tried but unsuccessfully. The symptoms not being very acute an ice bag was ordered locally, and hernia gradually went back. Discharged August 4th, 1894, wearing a truss.—*Surgeon*, Mr. Spencer.

(B) *Strangulated Femoral Hernia.*

There were in the Hospital between January, 1894, and the end of September, 1894, six cases of strangulated femoral hernia. All the cases were in females.

In five herniotomy was performed, and of these two died, one of collapse (within the first 24 hours) and one of bronchitis (within 5 days). The sixth case was reduced under taxis. One of the successful cases of herniotomy was in a woman of 75 years of age.

No. 1. Annie W—, aged 30, admitted December 7th, 1893, with strangulated left femoral hernia.

History, &c.—First noticed a swelling in left femoral region in August, 1893, shortly after her confinement; three days before admission (December 4th) the swelling became suddenly painful, and there was severe and constant vomiting and absolute constipation; vomiting and constipation continued up to date of admission, and for the last two days was stercoraceous. On admission patient very collapsed: seen at once by Mr. Spencer, who decided to operate without an anæsthetic; sac was opened, and contained about a drachm of dark-coloured fluid and an inch of small intestine and a small piece of omentum; the bowel was purple coloured, its under surface being shiny, its upper rough and covered with thin flakes of lymph; the stricture was relieved, the bowel returned, and the omentum ligatured and cut off; the sac also was ligatured with a Staffordshire knot and cut off. During the operation three subcutaneous

injections of brandy were given, and patient stood the operation very well. Bowels were open December 8th, after an enema. Patient made a good recovery, wound healing by first intention. Discharged January 15th, 1894, wearing a truss.—*Surgeon*, Mr. Spencer.

No. 2. Sarah C—, aged 49, admitted March 23rd, 1894, with a strangulated left femoral hernia.

History, &c.—Ruptured many years; never worn a truss; taken with severe pain in abdomen and left groin two days before admission; this increased in severity, and was followed within six hours by vomiting, which was not stercoraceous; absolute constipation up to admission. March 23rd herniotomy; sac opened, and intestine, about two inches, which was moderately congested, reduced; sac ligatured and excised; wound closed with horsehair sutures and dressed with iodoform. Wound healed by second intention. Discharged May 9th, 1894, wearing a truss.—*Surgeon*, Mr. Cooke.

No. 3. Charlotte R—, aged 75, admitted February 23rd, 1894, with a strangulated right femoral hernia.

History, &c.—Ruptured six years; never worn a truss, and could always reduce the hernia herself. Failed to reduce it February 23rd, and the same evening she was sick. Bowels open on February 21st, not since. She had considerable and increasing abdominal pain and vomiting. On admission small irreducible strangulated right femoral hernia; vomited twice, distinctly fæcal. Herniotomy at 10 p.m.; gut, which was darkly congested, reduced, and sac ligatured and excised; wound closed with horsehair sutures, and dressed with iodoform and cyanide gauze. Bowels open immediately after operation; wound healed by first intention. Discharged, quite well, March 20th, 1894.—*Surgeon*, Mr. Cowell.

No. 4. Mary A—, aged 52, admitted May 25th, 1894, with a strangulated right femoral hernia.

History, &c.—Ruptured six years; hernia always reducible up to May 24th, when it became irreducible and painful; vomiting and constipation followed; vomit on admission fæcal. Patient fat and suffering from bronchitis. Herniotomy at 10 p.m.; sac opened, contents a small piece of congested

omentum and a piece of small intestine, claret coloured, and tightly nipped; gut returned to abdomen, sac and omentum left; wound closed and dressed antiseptically. Patient's bowels were slightly opened two days after operation with enema. She had bronchitis badly and this got worse, and she died of it May 31st.

P.M.—The sac of a femoral hernia is found at site of wound, containing a small mass of omentum; this is continuous through the femoral ring with the great omentum, which is drawn taut by the long band fixed to the sac; to the internal ring is adherent by soft recent adhesions a piece of ileum 4 inches above the valve; this shows a deep constriction of half the lumen of the gut; the mucosa seems intact, but the peritoneal coat is certainly torn, and the muscular very thin. The wall of the gut above and below the constriction is of a dirty brown hue; no peritonitis; lungs small, some hypostatic congestion. —*Surgeon*, Mr. Cowell.

No. 5. Jane C—, aged 68, admitted April 14th, 1894, with a strangulated right femoral hernia.

History, &c.—Reducible hernia 46 years; always worn a truss. On getting out of bed on April 14th the hernia suddenly came down, and patient could not reduce it; hernia was much larger than usual, and caused great pain and a feeling of sickness, but no actual vomiting; came at once to the Hospital, when a large hard, tense swelling was found in the right femoral region, dull on percussion and without impulse on coughing. Taxis tried in Surgery, but failed; after a hot bath tried again, and hernia reduced. Discharged April 19th, 1894, wearing a truss.—*Surgeon*, Mr. Macnamara.

No. 6. Annie D—, aged 42, admitted August 9th, 1894, with a strangulated right femoral hernia.

History, &c.—Five months ago first noticed a lump in her right femoral region; three days later went to the Soho Hospital, when it was tapped, and about ½ of a pint (according to patient's statement) of opaque fluid drawn off; swelling then to a great extent subsided. Two or three weeks later vomited frequently, nature of vomit being uncertain; the vomiting lasted for two or three days; she had a similar attack of vomiting a fortnight ago. Patient returned to the Soho Hospital, and was ordered a truss, which she wore up to August 3rd, when she

had a return of the vomiting and pain in the femoral region. She then noticed that the swelling had come down by the side of the truss. Vomited at intervals up to August 7th, when about 10 p.m. she brought up a quantity of fæcal matter; this occurred again about 5 p.m., August 8th; no motion or flatus since August 7th; vomiting quite painless since August 7th. On admission, tender tense swelling in right femoral region; no impulse on coughing. Operation immediately after admission (6 p.m.); sac opened, intestine found deeply congested, but not gangrenous; sac was excised, and a flap of pectineus muscle and fascia turned up and sutured to Poupart's ligament above. Patient stood the operation well, but died suddenly at 3 a.m. No P.M. allowed.—*Surgeon*, Mr. Stonham.

(c) *Strangulated Umbilical Hernia.*

There were three cases of strangulated umbilical hernia, all occurring in females. In two herniotomy was performed, one recovering and one dying (the latter was admitted in a moribund condition); the third case was relieved by the local application of ice.

No. 1. Hannah B—, aged 51, admitted July 2nd, 1894, with a strangulated umbilical hernia.

History, &c.—Patient, who is a very fat woman, has had an epiplocele for many years; never had much inconvenience with it; it first appeared after the birth of her second child. On June 30th the swelling, which is about three inches in diameter and soft, became painful and increased in size; at the same time she had an attack of vomiting, which has continued up to time of admission and is now fæcal. Bowels not open since evening of June 30th. July 3rd, herniotomy performed, a curved incision being made and sac and ring excised, commencing on right side; the sac contained much omentum mixed with fat, and a loop of transverse colon, not discoloured, but tightly nipped; the omentum and gut were reduced and sac excised, and five deep buried sutures passed through the peritoneum and aponeurosis; the middle sutures included fat and the recti, the skin was united with continuous suture, and dressed antiseptically; strapping and a many-tailed bandage covered with a tight

binder completing the operation. Bowels were freely open July 1st; patient was much troubled with flatus and distension, which existed before the operation, and which was treated subsequent to the operation (after the first 24 hours) by daily purging. Wound dressed on July 8th, again on July 11th, when it was found to have healed by first intention. Discharged August 4th, 1894, wearing an abdominal belt.—*Surgeon*, Mr. Spencer.

No. 2. Mary M—, aged 47, admitted June 24th, 1894, with a large umbilical hernia and symptoms of strangulation.

History, &c.—Ruptured for many years, and has worn an abdominal belt for some time; married and has a large family. Been an in-patient at Westminster Hospital four or five times for similar symptoms. Patient is a fat, unhealthy-looking woman, who drinks heavily; she has a very large umbilical hernia, which is partially reducible; a large mass of fæces can be felt in sac; she has been slightly sick, but vomit is not fæcal; she has had constipation for three days, and a feeling of tension in the abdomen, but passes a little flatus. Ice bag ordered to be applied locally. On June 26th her bowels were open twice naturally, and the hernia had considerably diminished in size. Vomiting ceased within twelve hours of admission. By June 29th the bowels were acting regularly, and the hard mass of fæces had disappeared from the hernial tumour. Discharged June 29th, 1894.—*Surgeon*, Mr. Macnamara.

No. 3. Agnes R—, aged 52, admitted September 14th, 1894, with strangulated umbilical hernia.

History, &c.—Symptoms of strangulation since September 10th, but patient refused to attend at an hospital. On admission she was very collapsed, hernial sac much inflamed and red, about 1 foot in diameter, much scarred from previous ulceration; patient enormously fat. Operation was performed at once, ether administered for first incision, and its administration then stopped. A semicircular incision made round the right side of the sac and neck of sac reached, similar incision left side, and neck of sac cleared all round. Sac opened, contents large and small intestines and omentum all matted together and thickened, and with a marked deposit of fat. Gut was cleared from its adhesions to sac and great omentum with some difficulty, and as it was healthy returned to abdomen, though some force had to

be employed to do so. At this stage, patient became very blue, and pulse irregular. ♏ xx, of brandy were administered hypodermically, and patient rallied but soon collapsed, pupils dilating and pulse becoming more feeble. The omentum was rapidly ligatured and cut off, but though artificial respiration was done, patient sank and died on the table.

P.M.—Patient weighed twenty-two stone; on opening the abdomen the small intestines were found distended except last 43 inches, these 43 inches with cæcum, ascending and half of the transverse colon, all of which had a mesentery, were collapsed, and had apparently formed the contents of the hernia together with some omentum, the omentum being adherent to the wound; peritoneum normal.—*Surgeon*, Mr. Spencer.

EXPLORATORY LAPAROTOMIES PERFORMED

Between January 1st, 1894, and October 1st, 1894.

The following are the conditions for which laparotomy was performed:—

For Perforative Appendicitis. 1. Died.
For Malignant Stricture of Sigmoid Flexure. 1. Died.
For Gall-Stones. 1. Negative.
For Malignant Disease of Abdomen. 2. Both unrelieved.
For Suppurating Properitoneal Cyst. 1. Recovery.
For Tubercular Peritonitis. 2. Recovery.
For Acute Intestinal Obstruction. 1. Recovery.
For Tumour of Liver. 1. Died.

No. I.—*For Perforative Appendicitis.*

Alice U—, aged 9, admitted June 11, 1894, with acute peritonitis.

History, &c.—Perfectly well up to morning of June 8th, when she first complained of pain in right side of abdomen, but went to school and remained there all day; in evening much worse; bowels thoroughly open about 6 p.m.; vomited during night; vomit green. June 9th, doctor called in, and hot fomentations and medicine ordered; abdominal pain increased; unable to take her food; suffered from thirst; bowels not open. June 10th, swelling of abdomen and retching; bowels open at

night after glycerine enema. June 11th, much worse; abdominal pain most acute; admitted to Hospital 3.30 p.m. On admission acute peritonitis; no tumour palpable in abdomen; some fulness *left* iliac fossa; abdomen dull on percussion, no œdema or redness of walls; per rectum nil; inguinal and femoral regions free. Bowels not open since June 10th. Temperature 100·4°. No history of any fall, blow or twist; is not known to have eaten any stone fruit; not generally constipated, and has never had any previous abdominal trouble. June 12th, laparotomy early in the morning; incision median line, and about six ounces of stinking pus let out from what appeared to be a small cavity extending downwards and to the left of the median line. This was taken to be an encysted peritonitis, and the cavity was flushed with warm boracic lotion and a drainage tube inserted. No further exploration made. No fæcal matter in the pus. Wound dressed with cyanide gauze. Patient gradually became worse, the swelling of abdomen not being much diminished, and the pain being very acute; legs drawn up, thoracic breathing; temperature 101°; restless, flushed, but quite conscious. June 14th, bowels thoroughly open naturally, but vomiting of a pumping character commenced. Temperature rose gradually to 103·8°, and on June 16th patient died.

P.M.—General peritonitis and suppurative appendicitis with perforation. In the appendix was found a fæcal calculoid. The abscess opened during the operation was only part of the general peritonitis.—*Surgeon*, Mr. Macnamara.

No. II.—*For Malignant Stricture of Sigmoid Flexure.*

George W—, aged 67, admitted June 3rd, 1894, with pain and swelling in the abdomen and obstinate constipation.

History, &c.—Habitually constipated; present attack began May 27th with pain and swelling in the *right* iliac fossa and constipation. Took to his bed and remained there until admission to Hospital June 3rd. Bowels open on May 26th, not since. He has had no vomiting, and has been able to take solids without apparent inconvenience; abdomen has continued to swell since May 26th and pain has increased; there is no history of alternating constipation and diarrhœa; never noticed blood in motions, but motions have been narrowed; no tenesmus, or pain

on defæcation; been losing flesh for last six months; family history good. Abdomen much distended generally, but there is a distinct bulging in *right* iliac fossa and a good deal of pain on deep pressure; abdomen tympanitic, no visible peristaltic action of intestines; nothing definite to be made out of bulging in the right iliac fossa; per rectum nil; no hernia; passes plenty of urine. He was ordered a simple enema, which acted well; up to June 13th he improved, abdomen getting less tense, and the bowels acting regularly without enemas; motions well formed, slightly narrowed, no blood. June 16th, abdomen began to swell again, bowels not open since 13th, complains of great pain, looks ill and anxious; very slight vomiting of bilious material. Ascending, transverse, and descending colon easily mapped out and enormously distended; well marked peristaltic action of intestines. Operation advised but refused, diagnosis being obstruction at sigmoid flexure. Patient rapidly got worse, was unable to take his food, and his abdomen continued to swell and his bowels remained persistently closed. June 20th, when practically moribund, consented to operation; exploratory laparotomy by median incision, obstruction found in sigmoid flexure; part of transverse colon, which was enormously distended, brought down to left groin and an incision made in abdominal parietes, and gut stitched to incision and opened. A very large quantity of fæcal matter evacuated. The laparotomy wound was closed in the usual way. Patient died six hours after the operation.

P.M.—In upper part of sigmoid flexure was found a malignant growth surrounding the gut; commencing ulceration of mucous membrane over the malignant stricture, the tips of the little finger could pass through the stricture; no enlarged glands or secondary growths; fibroid phthisis left lung; atheroma of large vessels.—*Surgeon*, Mr. Cowell.

No. III.—*For Gall-Stones.*

Charles P—, aged 41, transferred to Surgical Ward July 11th, 1894, for exploration of gall-bladder.

History, &c.—Quite well up to 2½ years ago, when he noticed a small, painless swelling region of ninth right costal cartilage; shortly afterwards pain of a severe kind in swelling,

and shooting into back and right groin; bowels generally constipated and often clay-coloured. Six months later began to pass gall-stones per rectum, and during last 2 years has passed one hundred and two; all the stones were small and faceted. Never been jaundiced. He now seeks relief for most severe paroxysmal pain in right hypochondrium, shooting into back and right groin, and which doubles him up and causes him to roll about in agony. On examination liver not enlarged, but the enlarged gall-bladder could be felt below ninth right costal cartilage; it is not tender to the touch. July 12th, incision in right linea semilunaris; gall-bladder exposed, found collapsed and healthy in appearance; finger could detect nothing in gall-bladder or cystic or common bile-duct; gall-bladder was not opened; liver seemed a little enlarged; wound closed with silver wire sutures. Free from pain until August 2nd, when he had a sharp attack of colic radiating from gall-bladder to umbilicus. Discharged August 9th, wound having healed by first intention, and being free from pain except the attack he had on August 2nd. He did not pass any gall-stones during his stay in the Hospital; his motions were pale, but hardly clay-coloured.—*Surgeon*, Mr. Cowell.

No. IV.—*For Suppurating Properitoneal Cyst.*

Mary Ann P—, aged 38, admitted February 24th, 1894, for enlargement of abdomen.

History, &c.—Married; one child. Six months ago noticed that her abdomen was becoming larger, but she took but little notice of it, as she attributed it to pregnancy. It continued to enlarge, and was painless. Six weeks ago, in the middle of January, she had a violent attack of vomiting, followed by miscarriage. Subsequently her abdomen continued to enlarge. Now her abdomen is greatly distended by a tumour, which is resonant and elastic to the feel. There is no pain; temperature 102·4°; pulse rapid and weak; her left lower limb is much swollen. On February 25th an exploratory puncture in mid line was made with a trocar and canula, and about half an ounce of most fœtid, thin, blackish fluid evacuated, and some gas. February 27th, median abdominal section, which, without entering the general peritoneal cavity, opened a large cystic

cavity. This cavity contained from ten to twelve pints of thin, black, highly fœtid fluid and a slough consisting apparently of a cyst-wall. After this slough had been dragged out the large cavity was carefully examined, and was found to extend from the liver down into the pelvis, but none of the abdominal viscera were exposed. It was therefore concluded that there had been a cyst in the abdominal cavity, which had then become shut off from the rest of the peritoneal cavity by adhesions, after which the primary cyst had sloughed; but there was no evidence to show how the primary cyst had originated, no pedicle being found. The slough was free in the secondary cyst, and on examination showed that it had contained many pints of fluid. Its position was properitoneal. The abdomen was thoroughly flushed with warm boracic, and wound closed and drained. For some days after the operation the patient was very weak, and had to take abundant stimulants. She, however, rallied on March 6th, and made an excellent recovery. Discharged April 18th, 1894, with wound closed.—*Surgeon*, Mr. Macnamara.

No. V.—*Sarcoma of Omentum and Gastro-hepatic Omentum.*

Henrietta D—, aged 39, admitted April 30th, 1894, with an abdominal tumour.

History, &c.—Married, six children, five alive; one born prematurely, which lived 12 hours; last child born in November, 1893; labour easy, but convalescence protracted. Spinal caries when a child; family history good. Patient first noticed a swelling about the size of a hen's egg in epigastrium 2 months ago. It has gradually increased in size, especially during last fortnight. She has been steadily losing flesh, and now weighs 5st. 13¾lbs. Lately she has had constipation, and difficulty in defæcation; no pain. A hard nodulated mass can be felt occupying left hypochondriac and lumbar regions, reaching from the ribs to a line drawn from the left anterior superior spine of ilium to within 1 inch of the left of umbilicus. Abdominal walls movable over mass, and mass slightly movable over deeper tissues; mass does not move with respiration. Tender on palpation, especially at its outer margin; per vaginam and rectum nil; liver not enlarged. *May 16th.*—Exploratory laparotomy left linea

semilunaris; large mass of sarcomatous tissue found occupying the great omentum, the anterior wall of the stomach, and the gastro-hepatic omentum. Abdominal wound closed; it healed by first intention. Patient was discharged, unrelieved, June 8th, 1894.—*Surgeon*, Mr. Stonham.

No. VI.—*For Recurrent Peri-typhlitis, which turned out to be Malignant Disease.*

John H—, aged 43, admitted July 10th, 1894, with a large swelling in right lumbar region.

History, &c.—Patient was in Westminster Hospital 3 years ago for a similar swelling and pain in right iliac fossa. The swelling, which was fluid, was incised in front and behind by Mr. Bond, and a large quantity of pus evacuated, diagnosis being peri-typhlitic abscess. At the same time patient was under treatment for stricture of the urethra. After his discharge from the Hospital the patient remained well until 3 months ago, when he noticed a swelling in the right lumbar region, and had considerable pain and vomiting. Bowels were very loose; pain and swelling have been increasing, and patient has rapidly lost flesh. No family history of importance. There is a large irregular swelling in right lumbar region, extending forwards to a line drawn vertically from middle of Poupart's ligament on right side to eighth right c. cartilage, and extending down to right iliac fossa. It feels hard, and is underneath the abdominal muscles; it is fixed, and there is a sense of deep fluctuation in the swelling. No enlarged glands, no disease of bone; temperature 99°. Diagnosed as a probable recurrent peri-typhlitic abscess. *July 21st.*—Laparotomy in right linea semilunaris, large mass of solid malignant growth found occupying right lumbar region, and extending down into the pelvis, and surrounding and matting together the large intestine and cæcum. There was also a loop of small intestine adherent to the abdominal walls. As disease was too extensive to deal with, the wound was closed and dressed antiseptically; it healed by first intention. The origin of the growth could not be ascertained. Discharged August 30th, 1894, feeling less pain, but with increase in size of tumour. He was gaining flesh after the operation. He has since been heard of as an in-patient at the Cancer Hospital.—*Surgeon*, Mr. Stonham.

No. VII.—*For Tubercular Peritonitis.*

Alec S—, male, aged 4½, admitted November 14th, 1893, with tubercular peritonitis.

History, &c.—In Westminster Hospital in September, 1893, with right congenital hydrocele; radical cure was performed, and some semi-gelatinous bodies, suggesting the possibility of tubercular peritonitis, were removed from the interior of the hydrocele sac. Grandmother died of phthisis, aged 38. Patient delicate from birth; suffers from bronchitis, and is very pale and thin; abdomen distended, oval, not tender, resonant all over. There is a simple ulcer over the site of the original incision in inguinal region, and a slight discharge. A daily rise of temperature to 102° for some time past. Urine nil. *November 22nd.*—Old inguinal wound scraped, and a sinus found leading down to a silk ligature that was placed round the neck of the hydrocele sac. The ligature was removed and wound washed with a solution of carbolic and covered with a carbolic guard. Laparotomy then performed in right linea semilunaris. Parietal and visceral peritoneum found studded with small tubercles. A coil of small intestines was then examined, and found covered with semi-gelatinous nodules. Peritoneal cavity was then most thoroughly flushed with sterilized warm 6 per cent. saline solution, sponged dry, and the abdominal incision closed. Wound healed by first intention, and temperature dropped to normal by November 27th. Temperature continued normal, and patient began to put on flesh. Sent to convalescent home January 10th, 1894.—*Surgeon,* Mr. Stonham.

No. VIII.—*For Tubercular Peritonitis.*

Sarah S—, aged 40. Admitted February 19th, 1894, with swelling of her abdomen.

History, &c.—Married 14 years; six children, youngest aged ten months; one miscarriage three years ago. Since last confinement, which was an easy one, her abdomen has been gradually increasing in size, especially so last six weeks. Three months after birth of last child was laid up for five weeks for weakness and great pain in left iliac fossa, and one month later noticed swelling of the abdomen to be greater, especially on left side, and lately to be more or less general. Has been

rapidly losing flesh. No catamenia since last confinement, previously regular. Patient has always been healthy, and there is no family history of phthisis or syphilis. Patient is thin and pallid; lungs, slight depression beneath left clavicle; indistinct crepitation in front at 5th right inter-costal space; crepitation both bases. Abdomen uniformly distended, dull in flanks, resonant in front; no thrill; no tumour to be made out. Skin of abdomen many lineæ albicantes. No œdema of legs or feet. Urine 1030, no albumen. Temperature 101·6°. *February 28th.*—Median abdominal section. In abdominal cavity several pints of yellowish fluid; intestines matted together by recent lymph and a quantity of tubercles on the peritoneal coat of intestines. Abdomen thoroughly flushed with warm sterilized water and wound closed with deep silk and superficial horse-hair sutures. Dressed with protective gauze, iodoform and cyanide wool. *March 9th.*—Sutures removed. Discharged March 29th, 1894, wound having healed by first intention, and patient in very much better condition.—*Surgeon*, Mr. Stonham.

No. IX.—*For Acute Intestinal Obstruction.*

John H—, aged 6, admitted December 6th, 1893, with acute intestinal obstruction.

History, &c.—No history was obtainable beyond that of acute intestinal obstruction of two days' duration. Incision 3½ inches long was made in right linea semilunaris; no congestion of gut was seen. Two peritoneal bands were found, derived from the mesentery, and passing from above downwards on the right side to the pelvis. They were ligatured in two places with silk and divided between. Gut showed tubercular nodules on its peritoneal surface; abdominal wound closed with deep and superficial sutures. Bowels were open on December 30th naturally, and motion was a naturally formed one. Wound healed by first intention. Patient sat up on January 16th for first time, and was sent to convalescent home January 22nd, 1894.—*Surgeon*, Mr. Stonham.

(Cases VII. and IX. are included in this series, though operated on before January 1st, 1894, because they were not discharged until after January 1st, 1894.)

No. X.—*For Tumour of the Liver.*

Catherine A—, aged 53, transferred from the medical wards August 27th, 1894, with an abdominal tumour.

History, &c.—Swelling in abdomen of two years' duration, growing more rapidly last three months; very little pain. Married, six children, five living, one died at 14 months. Menopause three years ago. Loss of flesh last 18 months. Vomiting two months. No history of phthisis or syphilis. Bowels have always been regular. Never been abroad. No history of potus. There is a tumour occupying most of the right side of the abdomen, hard and fairly movable; its most prominent point is three inches to the right of the umbilicus. Percussion note is resonant round the tumour; there is no perceptible thrill. The tumour appears to be continuous with the liver, and is free below; patient states that the swelling "grew" from below. Per vaginam nil; never had any swelling of the legs. Bowels regular, not clay-coloured. Urine acid, no albumen. Bile pigments. About six months ago patient became very yellow, and this lasted about one week; similar attack three months ago. *August 28th.*—Gas and ether. Incision in right linea semilunaris. Tense hard cystic swelling exposed continuous with the liver, and extensive in its attachments. It was considered to be of a malignant nature. The cyst wall was of a darkish-blue colour; some of the small intestines were adherent to the under surface of the liver. Part of the abdominal wound was closed with deep silk sutures, and the cyst wall attached by fine silk sutures to the peritoneum and skin, leaving an area of about a two-shilling piece exposed. The sutures were passed through only outer part of cyst wall (non-penetrating). Green protective, iodoform, and cyanide gauze applied. Patient stood the operation well. Subsequent to operation patient vomited several times; the vomiting continued; vomited matter greenish. Bowels not open; became restless, and wanted to get out of bed, then delirious; temperature which previous to the operation ranged between 100° and 102°, fell to 98°, then gradually rose to 101·6° on August 30th. *August 31st.*—The cyst was punctured with a large trocar and canula, and a large quantity of fluid and one hundred and eight gall-stones of various sizes evacuated. Patient gradually became more collapsed, and

temperature rose to 107·4° at 7 a.m., September 1st, when she died.

P.M.—Operation wound adherent partly by stitches and partly by soft adhesions with a cystic cancerous tumour 5½ inches in diameter in the front part of the right lobe of liver. There is no other recent peritonitis than that caused by the wound. Stomach enormously distended, lower border of pyloric end being 2 inches below umbilicus, and the transverse colon lying 1½ inches below the level of iliac spines. Liver, pancreas, duodenum, and part of colon were removed *en masse*. Liver soft, pallid, and much flattened, 13 inches long, 11 inches broad. In the right lobe and in the position of gall-bladder is a cancerous cystic tumour 5½ to 6 inches in diameter. In the cancerous cyst are 4 gall-stones; its wall or rather edge is composed of a firm white neoplasm, and its central portions are merely disintegrated cancerous deposit and purulent fluid. Dr. Hebb could not find P.M. the representative of a gall-bladder, but behind pancreas there were several cysts with purulent contents, which he took for occluded dilatations of the cystic duct. A probe passes easily from papilla in duodenum into bile-ducts. Besides the original growth, which is probably cancerous destruction of the gall-bladder, are several small secondary deposits in the liver. Pancreas normal. The right adrenal contained a deposit size of a marble, and in the left, one nearly as big as a hempseed. In right kidney is a spheroidal soft cortical deposit ½ inch in diameter, and in stomach two small firm white deposits. Lymphatic glands nil. Deposit size of a Spanish nut in the wall of the right ventricle of heart; it appears as a largish projection inside ventricle; it is firm and white.—*Surgeon*, Mr. Stonham.

Jaundice; Obstruction of Common Bile Duct.—Cholecystoduodenostomy by Murphy's Button—Death.

George C—, aged 65, admitted into medical ward August 3rd, 1894, suffering from jaundice.

History, &c.—Patient is a bricklayer, living in Bermondsey. In good health up to Christmas, 1893, when he began to lose flesh (weight 12 stone; now, September, 1894, 6 stone). Twenty-four hours after inhaling some sewer gas (three months ago) he was attacked with nausea and anorexia, followed by

vomiting, for which he was laid up one month. After this lost flesh rapidly and got weaker; two months before admission, diarrhœa; motions light-coloured; face yellow, three weeks before admission. On admission emaciated and very yellow; arteries hard and tortuous. Heart and lungs normal. Abdomen normal. Urine bile-stained. Bowels freely opened, motions clay-coloured. Temperature normal. After admission jaundice at first decreased, and some bile appeared in the fæces. *September 4th.*—A tense, easily movable, rounded tumour was felt below the ninth right costal cartilage (gall bladder). *September 9th.*—An attack of severe pain in region of liver, with increase of the jaundice and rise of temperature to 101°. Fæces after this again became colourless. *September 21st.*—Patient very emaciated, of an olive-brown colour bordering on black jaundice. Urine colour of ox bile; fæces quite pale. No enlargement of liver. Gall-bladder distended and tense. *September 21st.*—Operation: An incision 3 to 4 inches long from ninth right costal cartilage vertically downwards through the outer fibres of the rectus; region of common bile-duct and gall-bladder explored digitally before and after aspiration, and finally after opening. On aspirating the gall-bladder about half-a-pint of green bile was evacuated; on digital exploration of interior of gall-bladder no stones were to be found, and on further exploring with finger up to the cystic duct nothing was found there. Duodenum was then searched for, and on examination it was found that only a short distance of the descending portion was outside the peritoneum; the pancreas was easily felt and found not enlarged. The gall-bladder was then connected to the duodenum by Murphy's button about 2 to 3 inches below pylorus; in doing this the bile papilla was explored with the finger and no stone detected; a probe also was passed down the common duct, which was not stenosed, but most distinctly kinked. The abdominal wound was closed with silk and dressed with cyanide gauze and wool. Patient stood the operation well. *September* 22nd.—Bowels open, slightly green. Temperature 99°. *September 23rd.*—Bowels open, motions green. No food by mouth, but had commenced to strain at intervals, bringing up green bile. Urine clearing up. Six p.m., sick. *September 24th.*—Died at 7 a.m.; before death vomited water containing green bile.

P.M.—Body emaciated. Trunk and all the organs deeply bile-stained. Peritoneum smooth. Stomach normal. Duodenum attached by sutures and silver tube to gall-bladder. The button had accurately kept the gall-bladder to the duodenum, and the region of union was thickly covered with dense coagulated lymph (whole line behind hepatic flexure of colon). Intestines normal. Liver much bile-stained. Gall-bladder, cystic, and common ducts much dilated. Gall-bladder attached at apex to duodenum. Common bile-duct quite patent, but just at orifice it was pressed on by a growth in the head of the pancreas the size of a tangerine orange. This growth was very hard. Three soft cancerous nodules in the substance of the liver about the size of small nuts. Diagnosis: Malignant disease of head of pancreas.—*Surgeon*, Mr. Spencer.

Malignant Stricture of the Œsophagus.—Gastrostomy.

Thomas T—, aged 58, admitted September 18th, 1894, with malignant disease of œsophagus.

History, &c.—Nine months ago patient noticed "trickling sensation" in his throat whilst eating and drinking, followed by cough and regurgitation of food. For last six months increasing difficulty in swallowing. For past five weeks dysphagia very severe, and patient has only been able to swallow small quantities of liquids, most of which is returned with mucus in the coughing which follows; no blood or pus brought up; pain in epigastrium for some time. Family history good. Weight twelve months ago fourteen stone, now only six stone twelve pounds. In lower part of neck some hard enlarged glands can be felt, especially on left side (six weeks' duration); not painful to the touch. Dulness of upper part of chest, and some impaired movement. Some bronchitic rales over front of chest, and a little emphysema. Breath very offensive, and there is a constant hawking up of muco-pus. Patient drinks very slowly, and in very small quantities; the act causes severe coughing and return of the fluid. Larynx normal. On auscultation of the back during attempted swallowing of fluid a gurgling sound can be heard. An œsophageal bougie can be passed into the commencement of the œsophagus, but no further. A No. 2 male catheter also fails to pass down the œsophagus. On admission patient very ill and

could swallow nothing. Put on nutrient enemata and suppositories; these he returned, and hence, as a last resource, gastrostomy was suggested, although it had previously not been undertaken on account of the utterly unfavourable conditions. *September 21st.*—Gas and ether administered for incision only, and an oblique incision about two inches long made a little below the margin of the lower left costal cartilages in the ordinary position. Liver exposed, and found overlapping stomach, which was small and contracted, and drawn up under the left hypochondrium. Two silk ligatures were passed through the muscular coat of the stomach, a quarter-of-an-inch apart, as guides to opening the viscus, and two harelip pins passed, each one parallel to the wound, through the skin, peritoneum, and half-an-inch of the muscular coat of the stomach; each pin was secured with a silk figure of 8 ligature, and wound dressed with green protective, iodoform, and cyanide gauze. The operation lasted a quarter-of-an-hour, and no blood was lost. Patient died six hours later of exhaustion.

P.M.—Four nodules of cancer in the lower two inches of the trachea, one being about half an inch long; these nodules were soft and had extended through the cartilages. In the œsophagus at the level of bifurcation of trachea, was an ulcerated patch two inches long extending round œsophagus; no stricture. At the lower part of this patch was a thin soft cancerous mass growing from the mucous membrane; there were a few isolated nodules the size of a pin's head below this. At the upper part of this patch, a hole large enough to admit the little finger led into an abscess cavity situated just under the left sterno-clavicular joint; the walls of this cavity were formed of dense fibrous tissue, and were adherent to the trachea, the sternum, and the apex of the lung (left). Right pleura smooth and shiny, with a few adhesions at the base.—*Surgeon*, Mr. Spencer.

Gland in Neck with communicated Carotid Impulse.

Mary O—, aged 58, admitted April 28th, 1894, with a painful swelling in the upper part of the left side of the neck.

History, &c.—When 17 years old had a submaxillary abscess, which was opened, and in the following 11 years she had seven consecutive abscesses in the same region. First noticed the

swelling in the neck four months ago, and it has gradually got larger since; at first but little pain, now severe and continuous aching character. Family history good; married; four children, two alive and healthy, two died of convulsions; no miscarriages or history of syphilis. Below and slightly posterior to the angle of the lower jaw on left side is a softish swelling 1½ inches long and 1¾ inches in diameter; there is expansile pulsation in it, most marked over its anterior surface, and stopped by pressure on common carotid artery; no murmur or thrill in it; not separable from common carotid, on which it lies; tender on palpation, especially at its edges; it extends slightly under left sterno-mastoid muscle. No head or eye symptoms; cardiac dulness normal; heart's impulse felt internal to nipple and on the same level with nipple; impulse normal; heart sounds normal at apex, but marked accentuation of the aortic second sound at base. Radial and temporal arteries equal; latter rather feeble. Admitted on suspicion of carotid aneurysm. Patient was kept quietly in bed until May 8th, during which time swelling remained much the same, though it appeared firmer and with less distensile expansion. On May 8th patient was anæsthetised, with the view to more careful examination and possible ligation of common carotid. It was found that the tumour was of a fluid nature, and that it could be separated from the artery, and was without intrinsic pulsation. It was therefore diagnosed as a gland with communicated impulse from the carotid artery. Patient was discharged May 28th, 1894, the swelling having diminished slightly in size and become more ill-defined. She attended as an out-patient, and the tumour eventually turned out to be a gland which suppurated out. —*Surgeon*, Mr. Macnamara.

Epithelioma of the Tongue (left side), involving floor of mouth, left anterior pillar of fauces, and left submaxillary gland, in a Girl, aged 23. *Operation: Removal by Kocher's Method.*

Ada S—, aged 23, admitted January 20th, 1894, with large ulcer on the left side of the tongue.

History, &c.—Unmarried. Father died of cancer of throat (larynx ?) of two years' growth. Two-and-a-half months previous to admission first noticed a small hardish pimple on left side of

tongue, somewhat posterior to the main part of the growth as now situated. Noticed it on account of slight pain in swallowing or conversing. As pain continued saw a doctor two weeks later; second molar tooth removed, and growth cauterized. December 14th, came to the Hospital. The growth having extended rapidly after the cauterization, the first lower molar was extracted. Patient put on mercury by mouth and latterly by inunction to stage of salivation, without any good effect (from December 14th, 1893, to January 30th, 1894). Three weeks before admission sore throat and a tender swelling appeared in left submaxillary region; some time ago her saliva was tinged with blood. On examination tongue cannot be protruded beyond line of teeth. Digital examination difficult owing to pain; fulness left submaxillary region. Patient has always enjoyed good health, and appears now a well-nourished and cheerful person, and has a fresh colour. On January 30th patient was anæsthetised with chloroform. Floor of mouth and the left anterior pillar of fauces, left side of tongue up to quarter-of-an-inch of middle line, and part of left tonsil found infiltrated with the growth. Two sutures of floss silk passed through each half of tongue at tip. Incision made from chin downwards to hyoid bone in middle line, then along hyoid to tip of great cornu on left side, and thence upwards and backwards to a point a finger's breadth outside the angle of the lower jaw on left side. Flap of skin and superficial fascia turned upwards. Platysma and deep fascia incised, and digastric muscle and submaxillary gland exposed, latter hooked up, hypoglossal nerve and hyoglossus muscle exposed; the muscle was divided, and lingual artery tied and clamped in front to mark it. Hypoglossal nerve divided, facial artery and vein tied proximally, clamped distally. Attachment of platysma and deep fascia to jaw from angle to mid line divided after turning down the submaxillary gland, and attachment of mylo-hyoid to jaw exposed and cut through, and submaxillary wound plugged with a sponge. Mouth then opened, tongue drawn forwards, and frænum divided. Incision down middle line of tongue, its epithelial surface, and tongue split in half by fingers; diseased half drawn out below jaw, and cut away to level of hyoid bone, together with left anterior pillar of fauces, and a notch made in tonsil and soft palate. Submaxillary gland was

also removed, iodoform well rubbed into the wounded surfaces, and the wound plugged with strips of cyanide gauze, ends of which were brought out of the mouth and secured in this position. Neck wound closed with continuous suture, and a small drainage tube inserted at lower part. Throughout the operation there was but little hæmorrhage, and patient at end of operation still retained her fresh colour. Patient was up February 3rd. *February 12th.*—Some swelling above and outside the upper angle of wound, with a little pain in upper sterno-mastoid glands. *February 14th.*—Tongue rapidly healing; taken food by mouth last twenty-four hours. *February 23rd.*—Small quantity of pus evacuated from swelling at upper angle of wound. *March 2nd.*—Left side of neck much swollen; some more pus evacuated. *March 5th.*—Deep swelling in the sterno-mastoid and carotid glands, and it is worthy of note that this deep swelling had appeared within one month of the commencement of the ulcer on the side of the tongue, and that subsequent to the operation it reappeared. Patient was discharged from the Hospital March 8th, 1894. She died of a recurrence in the sterno-mastoid and carotid glands, September 26th, 1894. The rapid growth and recurrence, the early age of the patient (23), and the extensive nature of the operation are noteworthy.—*Surgeon*, Mr. Spencer.

DISEASES OF THE BREAST.

No. 1.—*Adenocystic Fibroma of Right Breast in an Infant of four years—Amputation of Breast.*

History, &c.—Stephen E—, admitted February 5th, 1894, with mammary tumour; mother states that the child has had a hard lump in the right breast since birth, that it was round, tense, and of the size of a pea; painless and unaccompanied by redness or neighbouring swelling. It gradually increased in size, but during last three weeks has increased very rapidly, and become much softer. No history of syphilis or tumours. Three children out of eight have died, one of bronchitis, one of phthisis, and one of meningitis (?) History of epistaxis in two children

and of easy bruising in the patient. No history of injury to breast. On examination right breast presents a swelling the size of half a lawn-tennis ball; it is lobulated, and consists of partly solid and partly soft elastic material, the latter consisting of spheroidal swellings of various sizes, and apparently containing fluid. Skin free and normal; nipple prominent, but no discharge from it; no glandular enlargement. The tumour was explored with a grooved needle, and two to three scruples of blood-stained fluid evacuated. Explored again above the lump, and a small quantity of clear straw-coloured fluid escaped. Diagnosed, therefore, as serocystic disease. *February 13th.*—Breast freely removed; tumour found to be of a multilocular cystic character, the cysts containing yellowish-red fluid. One part, however, consisted of a solid hard mass the size of a hazel nut. Wound healed by first intention. Patient discharged February 19th, 1894. Microscopically small smooth cysts in fibrous tissue, the cysts being without intracystic growths. —*Surgeon*, Mr. Spencer.

No. 2.—*Duct Cancer.*

M. P—, female, aged 50, admitted July 9th, 1894.

History, &c.—Married, eleven children, some of whom died of phthisis. Patient enjoyed good health until six months ago, when she noticed a swelling about the size of a Spanish nut in her left breast. Since then she has had much pain locally, and down the arm, and the tumour has grown rapidly. Family history of phthisis. In outer and lower part of left breast is a hard tumour about six inches by five inches, nodular, and adherent to the skin, which is red and inflamed; nipple retracted; there is a serous discharge from the nipple, which patient has noticed some time. Enlarged glands under pectoral muscle and in axilla. *July 11th.*—Breast amputated; axillary glands not touched. Microscopically the growth consisted of well-marked cysts and intracystic growths with degeneration of the centre of the tumour. In some parts there was a well-defined capsule, in others it had become absorbed and incorporated in the advancing growth. Microscopically the growth was a typical duct cancer. Patient was discharged August 1st, 1894.—*Surgeon*, Mr. Bond.

No. 3.—*Vaccinia Pustules—Right Nipple.*

Emily F—, aged 36, admitted August 10th, 1894.

History, &c.—Trouble began with pain and swelling of the right nipple; four days later noticed vesicles around the nipple; states that her baby had "bitten the nipple" four days before the pain and swelling was first noticed. July 24th the baby was vaccinated, and at the time that the patient first noticed her breast was bad (July 31st) the vesicles on the baby's arm were matured. Around the nipple of the right breast is a cluster of vesicles containing yellow lymph, and the breast is swollen, painful, red, and hot. The axillary glands are enlarged and tender, and have been so from the commencement; the nipple of the left breast is also sore and has a small dry scab above it. At the site of inoculation was a raised pustule surrounded by a ring of vesicles; the main pustule discharged and left an indurated raised sore exactly similar to that of the ordinary vaccination sore on the arm. Patient never had any rash or symptom of syphilis. Under treatment with boracic powder and cyanide gauze the nipple and breast soon improved and the enlarged glands subsided.—*Surgeon*, Mr. Spencer.

No. 4.—*Scirrhus Mammæ.—Amputation of Breast and Removal of Axillary Glands.—Rapid Recurrence with extensive Secondary Growths.*

History, &c.—Alice L—, aged 47, admitted March 24th, 1894, with carcinoma mammæ of nine months' duration; axillary glands much enlarged. *March 27th.*—Very free removal of breast and axillary glands; a large amount of pectoralis major muscle was also cut away. By the end of April, the wound having almost healed, the scar was found infiltrated with several small hard secondary growths; these gradually increased in size. On May 12th patient whilst turning in bed fractured her left femur in its upper third; no previous pain or swelling in the limb. Patient gradually got weaker, the supra-clavicular and axillary glands increased rapidly in size, and at the beginning of August spontaneous fracture of the surgical neck of the left humerus took place. Patient died of exhaustion August 26th, 1894.

P.M.—Fractures of upper half of left thigh and left humerus. In the site of both breasts are numerous spheroidal, firm, whitish

cancerous deposits, more numerous in left mammary region, but forming a greater mass in the right where they are aggregated about the nipple. Individually they are about the size of beans but altogether form collections equal in bulk to a walnut. On the left side they extend also towards axilla subcutaneously and downwards to ribs and sternum, both of which are studded with them. Several deposits in the ribs, but the upper third of left femur, left innominate bone and the sacrum are almost (except head of femur) completely infiltrated and softened with the cancerous deposit which forms large lumps on the surface. At the surgical neck of left humerus there is at the fracture site, a deposit the size of a Spanish nut and occupying the medullary cavity. At the vertex, but rather more to the left side, is a deposit 2½ inches in diameter, which has quite infiltrated both parietal bones in this situation, and extends inwards through the dura as far as the pia, but has not implicated the cortex.

Right squamous affected similarly and to a similar extent. Liver: one spheroidal deposit size of a large pea; this is the only visceral deposit found. No deposits in thoracic or abdominal lymphatic glands. Microscopical examimation showed that the neoplasm was carcinoma alveolare.—*Surgeon*, Mr. Cooke.

Simple Hypertrophy of the Synovial Membrane of the Knee Joint.—Arthrectomy.

Eliza P—, aged 30, admitted April 24th, 1894, with swelling of left knee-joint.

History, &c.—Six years ago had a fall on her left knee; caused her no inconvenience. One year later noticed her left knee was larger than the right, and had occasional slight pain in it. Went to St. Bartholomew's Hospital, where the joint was strapped. During this time she was working a treadle machine, and so could not rest her knee at all. After having the joint strapped she was obliged to lay up. Twice during the last four years she has "twisted" her knee. Lately she has worn a knee-cap. Her mother died of phthisis. Thinks one of her sister's lungs are weak. Patient herself has always had good health, but when young had some throat affection, which was relieved by the cautery at Golden Square Hospital. No history of syphilis. Patient sweats a good deal at night. Lungs nil.

Temperature normal. The left knee-joint is very much swollen, the swelling being general. On the inner side of the patella a lump the size of a walnut can be felt which slips away under the fingers. Distinct fluctuation in the joint; slight creaking on movement of joint. Movements free; skin over joint normal. No enlarged veins. No pain except after a long day on her feet. Circumference of left knee above patella 15⅜ inches, of right 13 inches. *May 9th.*—Incision 4 inches long made on the outer side of the joint, capsule exposed and opened, and about half-a-pint of dirty yellow-coloured fluid escaped. The synovial fringes were found greatly hypertrophied, some being of the size of a hen's egg. They formed a great mass on the upper and back part of the joint. The joint was then completely opened by a transverse incision about 1 inch below the patella and extending for about 3 inches up the inner side. The ligamentum patellæ was cut across. The knee was then forcibly flexed, and the synovial membrane with the hypertrophied fringes dissected off from the capsule and removed. The crucial ligaments were scraped clean and the joint washed out with carbolic lotion 1 in 40. The leg was then extended and the cut ends of the ligamentum patellæ sutured together with four silk sutures. Incisions closed, and wound dressed with bicyanide gauze and iodoform wool. It was then firmly bandaged and placed on a back splint. The wound healed by first intention, and on June 1st was put up in silicate bandages. Sent to a convalescent home July 6th, 1894.—*Surgeon*, Mr. Stonham.

Microscopic examination revealed simple inflammatory hypertrophy; no evidence whatever of tubercle.

December, 1894.—Patient has now an excellent joint, though it is necessarily stiff.

Acute Septic Arthritis of Knee Joint.

Incisions and Drainage.—Subsequent Amputation of Thigh.—Death from Secondary Hæmorrhage 21 days later.

Joseph W—, aged 44, admitted October 28th, 1893, with pain and diffuse swelling in right knee and calf.

History, &c.—Six weeks previously patient was laid up with influenza for a fortnight; a month ago he was taken with sudden pain and swelling in the right thigh. His medical

man made an incision on the outer side of the thigh, and removed, according to patient's statement, a "core," solid and yellow, and about 6 inches long; he also let out a quantity of dark, clotted blood. After the incision there was a copious discharge of pus, and shortly afterwards the knee began to swell and be very painful, and three weeks ago the calf became red, swollen, and painful. History of a blow on knee four months ago, but patient does not connect that with his present attack; syphilis and yellow fever some sixteen years ago; never had any other illness; F.H. nil; no gout, no gonorrhœa. The calf of the right leg is very swollen, indurated, and tender; the knee is also much swollen, and there is fluid in the joint; keeps the limb flexed; discharge of unhealthy pus from old incision; temperature ranges between 100° and 102°. An incision was made into the calf of the leg, and about one pint of pus evacuated, and leg enveloped in hot boracic fomentations; temperature fell to normal after the incision. Between November 1st and January 16th several incisions were made to let out pus, including free incisions into the knee-joint. Patient, however, lost ground and kept a high temperature, and on January 16th, 1894, the thigh was amputated at the junction of the upper and middle third by antero-posterior flaps. The vessels were atheromatous, and were ligatured with carbolised silk; stump dressed with iodoform and cyanide gauze. He stood the operation fairly well. *January 19th.*—Some pus on inner side of flap; temperature 103°; wound dressed. *January 20th and 21st.*—Temperature normal. *January 23rd.*—Up to 103·2°; discharge scanty. *January 29th.*—A great deal of discharge of sanious pus; temperature nearly normal; taking well. *January 31st.*—Discharge much less. *February 1st.*—Free oozing of blood, which stopped spontaneously. *February 6th.*—Wound dressed; some bloody discharge. At 4 p.m. severe arterial hæmorrhage occurred, and a tourniquet was applied at once to the common femoral. Mr. Macnamara was summoned, and proceeded to open up the flaps, and turned out a large quantity of blood clots; the femoral artery, which was the source of the bleeding, was secured and ligatured with carbolised silk; wound closed and firmly bandaged, but patient never rallied, and died at 8 p.m.

P.M.—Flaps riddled by diffuse suppuration; end of bone

dry; the arteries of both lower extremities from about origin of profunda downwards in an advanced condition of calcareous degeneration. There is a large aperture in right femoral just above ligature; there is almost no clot; cerebral arteries and those of upper extremities of the aorta are quite normal. Heart: hypertrophy of left ventricle; two anterior cusps of aortic valve thickened, adherent with calcareous deposit, rough towards ventricle; one cusp fenestrated.—*Surgeon*, Mr. Macnamara.

CASES OF INTEREST.

Reported by W. H. GOSSAGE, H.P.

OPIUM POISONING.

J. M., aged 47; was admitted under Dr. Donkin on July 3rd, 1893, suffering from an overdose of opium. This man had served 25 years in the army, having spent many years in India. After his discharge he worked as a hospital porter. He had about a year before admission been post-mortem porter at Westminster Hospital, and had been discharged for drunkenness. He had been a heavy drinker all his life. He usually imbibed rum, but was not averse to methylated spirits or turpentine when he could get nothing better.

He was brought up to the Hospital about 11 p.m. on July 3rd, 1893. His friends said that while drunk he had taken about 2 ozs. of laudanum. He was completely comatose; the pulse could not be felt at the wrist, and he did not make any attempt to breathe, and was apparently dead. The heart could still be heard beating very feebly. Artificial respiration was started at once, and after it had been persevered in for a short time the pulse at the wrist became perceptible, but the man made no attempt to breathe independently when artificial respiration was stopped. It was accordingly necessary to keep on with artificial respiration, and this was continued for 12 hours before the man made any attempt to breathe independently. After it had been kept up continuously for this time he breathed naturally and began to show signs of returning consciousness. His chest was very much bruised, and his tongue was swollen from having been held out with forceps for such a long period. On the following day patient complained of great pain in the chest and both arms, and especially in the right shoulder, which on examination was found to be dislocated. The patient was put under an anæsthetic, and the dislocation was reduced. In the evening patient became delirious, and on the following day was much

worse, suffering from typical symptoms of delirium tremens. The delirium continued, and patient became much exhausted, and died on July 6th.

Post-mortem (P.M. Book, vol. viii. p. 75).—The body generally was well nourished; there was slight jaundice; the surface was very livid; the viscera generally were much congested and blood-stained from decomposition of the blood. Pleuræ normal. Lungs œdematous and much engorged. Heart and pericardium normal. There was marked atheroma of the aorta. Liver 67 ozs., normal. Spleen 6 ozs., very dark, firm, and friable. Kidneys 15 ozs., much engorged, but otherwise normal to the naked eye. The veins of the stomach were much congested, and the surface was bloodstained, and there were large areas of coalesced petechiæ. Intestinal tract nil.

Microscopical examination of the kidney showed well-marked chronic and acute nephritis, the latter predominating. There were a few areas of fibrosis; several fibroid malpighians were seen. The basement membrane was everywhere well-marked and coarse; much of the epithelium dropped out of the sections, and the cells were very granular; many tubules were filled with casts; the malpighians showed marked nuclear proliferation.

ENTERIC FEVER AND DIPHTHERIA.

F. L. R., aged 16, living in Battersea; was admitted under Dr. Sturges on October 30th, 1893. She was stated to have been taken ill suddenly 14 days before admission with headache and diarrhœa. She was delirious almost from the beginning of the illness; 2 days before she came in she had a severe attack of epistaxis. Since she was taken ill she had a bad cough, and her face was of a dusky colour; before she came into the Hospital she had been kept on a milk diet. Except an attack of bronchitis as a child she had never been ill before.

On admission she was very prostrate, but was restless and delirious. Her complexion was dusky. Tongue was slightly furred. Abdomen was considerably distended; a few enteric spots were scattered over the abdomen. The spleen could not be felt. She did not have profuse diarrhœa, but her motions were loose, of the consistence and colour of pea-soup. Pulse 112, dicrotic;

respirations 40. Patient had a good deal of cough. There was no dulness over the chest, but rhonchi and sibili were heard all over. Temperature on admission was 103°.

For 2 or 3 days after admission she remained in much the same condition, except that she became more delirious and kept trying to get out of bed.

Temperature varied between 101° and 102°. On November 4th she seemed to be less prostrate; she was still troubled with cough; rhonchi and sibili were still heard all over the chest, and there was deficient entry of air into both bases, especially on the right side. On the 6th patient seemed to be rather better, but it was noticed that any attempt to swallow excited cough and that her cough was brassy; her voice also was husky. Temperature was 103°. Pulse 120, still dicrotic, but regular. Nothing was seen on examining the fauces. On the following day the temperature rose to 104°, and patient became more delirious, and pulse rose to 132. On November 8th membrane was seen on the soft palate, and there was some loss of resonance at the right apex in front with deficient entry of air. The temperature fell to 100° during the night, but rose to 103° the next day; patient was free from delirium and quite conscious, being able to recognise her mother. At 6 p.m. she died suddenly after taking some food.

Post-mortem, 20 hours after death (P.M. Book, vol. viii. p. 142).—Body well nourished; on posterior nares, posterior surface of soft palate, and on posterior aspect of epiglottis was a thick yellowish membrane which extended downwards from the larynx into the bronchi as a continuous lining of the respiratory tubes. It was thickest in the larger bronchi at the root of the right lung. On section of the lungs the membrane was easily seen projecting from the cut bronchial lumina; the subjacent mucosa was everywhere of a red purplish hue, and the subjacent tissues about pharynx much swollen from inflammatory œdema and exudation. The right upper and lower lobes were firmly consolidated, being in a condition of well-marked diphtheritic broncho-pneumonia; they were of a fleshy consistence and spotted all over with little irregular areas of yellow. Numerous small areas of broncho-pneumonia scattered about left lung. Both lungs were extremely œdematous and somewhat engorged. There were old

tough adhesions over right lower lobe; elsewhere the pleuræ were smooth, free, and shiny. Heart normal. Peritoneum normal. The gastro-intestinal mucosa was throughout in a condition of catarrh, being soft, velvety, and covered with mucus and epithelial flakes. The intestinal contents were fluid and yellow. The ileum was brightly injected throughout, and Peyer's patches showed well-marked enteric lesions, those higher up being soft and swollen, and those lower down near the valve being ulcerated; in the lowest three the muscular fibres of the gut were exposed. Spleen 11½ ozs., was free, much lobulated, very soft, and moderately dark. Liver and kidneys febrile. Lymphatic glands of cervico-maxillary region of mediastinum and of mesentery were large, soft, swollen, and very hyperæmic.

HÆMORRHAGIC PLEURAL EFFUSION, THE RESULT OF CHRONIC PANCREATITIS.

C. H. F., aged 35, organ-grinder; was admitted under Dr. Sturges on July 2nd, 1894, complaining of pain in left side of throat and also in the upper part of the abdomen. Patient stated that he was quite well up to 1 month before admission; he was then taken ill suddenly with pain in left side of the chest, and also across the upper part of his abdomen. This was accompanied by cough with thick white phlegm, and also shortness of breath. Patient got gradually worse, but did not lie up in bed nor consult a medical man until he came up to the Hospital. During his illness he lost flesh and strength, and used to sweat at nights. Patient stated that just before the commencement of his illness he had got wet through on several occasions. Until 13 months before he came into the Hospital patient followed the occupation of a greengrocer; since that time he had been an organ-grinder, and had been exposed to all sorts of weather. Ten years ago he was run over by an omnibus, and received compound fractures of both legs, both of which had to be amputated below the knee, but no account could be obtained of any injury to the abdomen. Since this accident patient had been in the habit of drinking excessively. During last 10 years patient had been laid up three times with severe pain in the

upper part of the abdomen (right hypochondrium and epigastric regions); no other previous serious illness; patient had always lived in England. Patient's mother died, æt. 45, of "cancer of the tongue."

On admission patient was well nourished, but stated that he had lost weight; he was markedly anæmic. He had considerable dyspnœa. Respirations 42. He had slight cough, with expectoration of thick, white phlegm. There was dulness all over the left side of the thorax, back and front, and vocal fremitus and vocal resonance were absent over the left side. The breath sounds were diminished all over left side. The heart could not be felt beating at all on the left side of the sternum, but could be felt in the 4th interspace to the right of the sternum. Patient also complained of pain in the epigastric region, which was not worse after food, and of tenderness there on pressure. His appetite was bad. No enlargement of liver. Urine 1010, acid, no albumen. Temperature on admission was normal.

On July 3rd patient passed a restless night, and his dyspnœa was greater this morning. His left pleural cavity was aspirated, but when 32 ozs. of fluid had been withdrawn the operation was stopped owing to patient becoming faint. The fluid ran quite freely, was of a chocolate colour; specific gravity 1022, and contained a large quantity of blood cells; it did not clot at all. Patient was considerably relieved by the aspiration, and seemed easier for the next 2 days, temperature still remaining normal. There was no diminution of the dulness after the tapping.

On July 6th patient complained of severe pain in epigastrium, which was relieved by fomentations, and in the evening his temperature rose to 101° F. He also complained of being very short of breath. On the 7th the temperature varied between 98° and 100° F., and he still complained of severe pain in the epigastric region. On deep pressure in this region some sense of resistance with abnormal pulsation was made out. Patient still had considerable dyspnœa, and said he felt much weaker.

For the next 4 days the temperature remained normal, but patient seemed to get gradually weaker, and still complained of occasional paroxysms of severe pain in the epigastrium. The physical signs in the chest remained the same.

On July 12th the temperature rose gradually to 102° in the

evening, and patient seemed much worse, and died rather suddenly at 5 a.m., July 13th.

Post-mortem, 9 hours after death (P.M. Book, vol. viii. p. 307). Body well nourished. Left thorax projected markedly. On opening chest the heart was seen pushed up and to the right; the left thorax contained about a gallon of thin, sanious fluid; the lung lay completely collapsed against the spinal column; there was a small quantity of bloody lymph on parietal and visceral surfaces of pleura. Right lung and pleura structurally normal. Heart small, flabby, empty; valves normal. There was slight atheroma of aorta and branches, most marked at lower end of abdominal aorta. On opening the abdomen the stomach was seen to project from the presence behind it of a hard mass the size of a cricket ball; it was roughly spheroidal in shape, and on dissection was found to be the pancreas, the body and tail of which are destroyed by infiltration with dense, white, fibrous tissue; this had broken down in the centre into a ragged cavity filled with pus; the head of the pancreas was very hard, but preserved its pancreatic appearance. In the upper part of the mass was an irregular cavity communicating by a narrow fistulous channel with the left pleural sac, into which it opened by a circular, ragged hole. This cavity was possibly a dilated vein. The mass was adherent to the posterior wall of the stomach, and in one place the gastric mucosa was yellow and swollen, nearly ulcerated through. The duodenal mucosa and papilla were normal. Liver 52 ozs., normal. Spleen 7 ozs., soft, dark, homogeneous, showed near surface a few spheroidal yellow bodies not larger than small pins' heads. Kidneys 10 ozs., normal. Lymphatic glands normal.

Microscopical examination of the pancreas.—There was no appearance indicative of malignant disease, *i.e.*, either of sarcoma or carcinoma; the white mass invading the body was simply fibrous tissue; the head showed some interstitial pancreatitis; some lobules were markedly degenerated, especially in their centres.

From the naked-eye and microscopical appearance of the pancreas, and from the absence of any secondary deposits it is obvious that the condition was one of chronic pancreatitis, marked by the formation of much fibrous tissue, which had destroyed the gland

body, and had broken down in the centre. It is probable that the inflammation started in the connective tissue outside the pancreas, which suffered secondarily. It is possible that this inflammation started at the time of the accident.

INTESTINAL OBSTRUCTION, DUE TO TUMOUR OF SMALL INTESTINE.

F. N., aged 21, blacksmith; was admitted under Dr. Donkin on March 5th, 1894, complaining of pain in the abdomen. Patient stated that he was quite well up to 6 weeks before admission, when he began to suffer from pain in the abdomen; this pain got gradually worse, so that patient was obliged to give up work about a month before admission, and a week later had to lie up in bed. About a week before he came into the Hospital he began to suffer from vomiting and diarrhœa; the motions were very loose and black in colour; patient had been taking iron; about the same time he began to suffer from headache. Patient attributed his illness to getting wet through. No previous serious illness.

On admission patient was very drowsy and prostrate. Temperature 101°. Pulse 112, full and regular. Respirations 28. There was considerable distension of the abdomen, chiefly of the small intestine, and there was great superficial tenderness all over the abdomen, and also great hyperæsthesia over the back between the angles of the scapulæ and the crests of the ilia. He also had severe frontal headache, and complained of his eyes aching. Heart and lungs normal.

On the day after admission temperature was lower, varying between 99° and 100°, but patient seemed to be more prostrate and still complained of abdominal pain, and there was still superficial tenderness. Bowels were open freely, motions being at first very loose and dark in colour, but later became semi-solid and lighter in colour. In the evening of the 7th temperature rose from 99° to 101°, and patient vomited twice, and still complained of pain. He was ordered pil. opii (gr. i.) every 12 hours. Patient remained about the same until evening of 8th, when he suddenly became more prostrate, and the pain and vomiting were much increased; the temperature fell from 102°

to 100°, and his pulse became very small and frequent. Being unable to retain opium pills owing to the vomiting, he was given gr. $\frac{1}{4}$ of morphia hypodermically. During the night he became gradually weaker, the vomiting being almost constant, and he died about 8.30 a.m. on March 9th.

Post-mortem, 8 hours after death (P.M. Book, vol. viii. p. 228).—Body well nourished. Rigor mortis well marked. Abdomen distended. On opening the abdominal cavity the peritoneal sac was found to contain from two to three pints of yellow, purofæculent fluid. The subperitoneal tissue was of a dark-red hue, and the peritoneum covered with a thin layer of lymph. The small intestine was distended, and the large contracted and empty. The small intestine was filled with liquid yellow fæces. The mesenteric glands were somewhat enlarged, soft, and hyperæmic. Thirty inches above ileocæcal valve was a yellow-edged ulceration aperture opposite mesenteric attachment. Three inches below this was a sausage-shaped mass of gut—an intussusception about 6 ins. long. It was obviously of recent origin, for there was no marked congestion of gut. On reducing this a cylindrical tumour attached to the gut, near the mesentery, was disclosed; it was $2\frac{3}{4}$ ins. long by $1\frac{1}{4}$ ins. in diameter; its ends were rounded, its surface covered with mucosa of a dark-red-brown hue, and on incision seemed to be made of fine fibrous tissue; in structure it was quite homogeneous. The lymphatic glands along mesentery were round, white, firm, and about the size of peas. Mucos of jejunum and ileum was much swollen. Most of Peyer's patches were ulcerated, but not all, some below the tumour having escaped. The edges of the valvulæ comiventes were much ulcerated, and had a wormeaten appearance. The rest of the mucosa seemed normal, though perhaps swollen. Elsewhere the alimentary tract (stomach, duodenum, colon, rectum) was quite normal. Abdominal viscera febrile. Lungs engorged and œdematous. Heart and pericardium normal.

Microscopical examination showed that the tumour was a myxofibroma; the blood-vessels were very numerous, especially near the surface.

CASES OF INTEREST.

REPORTED BY R. G. HEBB, M.D.

The clinical abstracts are made by the Registrars in the P.M. Book.

ULCERATION OF THE VERMIFORM APPENDIX.

SERIES III.*

CASE 1.—E. H., aged 13, male; admitted under Dr. Sturges, June 2nd, 1893. Had enteric fever (?) 4 years ago. Was in good health up to afternoon of May 27th, 1893, when he knocked up against a man. Was much frightened, but complained of no pain till next morning at 3 a.m., when he was waked with pain in abdomen. He vomited and had diarrhœa all that day. Vomiting persisted till the evening of the 29th. Complained now of pain, commencing at right side of abdomen and spreading all over. He became delirious and rapidly wasted. No motions since 28th. On admission was collapsed, very delirious, and screaming out from time to time. Much emaciated, face drawn and anxious. Tongue dry, brown, furred. Pulse 120. Temperature normal. Abdomen distended, tympanitic, and tender. Vomited once soon after admission, not fæculent. There was nothing to point definitely to cause of peritonitis. Lungs and heart nil. He was hypodermically injected with morphia, and 6 hours after admission was anæsthetised and his abdomen opened in the middle line. Much foul-smelling yellow pus escaped. Nothing definite was discovered, and a counter-opening was made in region of vermiform appendix, and the wound irrigated. Next day there was but little improvement, so a further opening was made just above left iliac crest. Was fed by nutrient enemata and kept under morphia. Gradually sank, and died June 4th.

Post-mortem examination, 28 hours after death (P.M. Book, vol. viii. p. 49). Body well nourished. Rigor well marked. Surface

* Up to end of August, 1894; for series I. and II., see vols. iii. and viii.

mottled with livid patches. Skin of abdomen green. Three surgical wounds—one in middle line between umbilicus and pubes, one over caput coli, and one just above left iliac crest. On opening abdominal cavity, the peritoneal sac is found to contain a large quantity of dirty green pus (1 to 1½ pints). The serous surface is everywhere covered with a thickish layer of greenish lymph; the fluid in sac is obviously fæculent. The coils of intestine are matted together. The gastro-intestinal canal is distended with fluid fæces and gas. The mucosa of stomach is much swollen, velvety, and pitted all over with numerous erosion ulcers. The mucosa of small intestine is of a dark-red hue. The vermiform appendix is adherent to caput coli and makes a bend on itself. About its middle is an ulceration hole with ragged edges; the perforation is complete. The mucosa of the distal half of appendix is yellow and sloughy, but its peritoneum is intact. No calculoid or other solid body was found in appendix. The mesenteric glands are much enlarged and quite soft. Kidneys 6½ oz., pallid, flabby. Spleen 3½ oz., soft, dark-red, not specially friable, firmly adherent to diaphragm. Liver 36 oz.; left lobe very thin, reaches to left flank. Liver substance soft, pale brownish red; capsule strips easily. Heart 5½ oz., and pericardium normal. Lungs adherent at apices, which are puckered and consolidated. In both are encapsuled small masses of caseation, and in the right numerous fibroid tubercles, some of which are caseous in centre.

Case 2.—J. H., aged 8, male; admitted under Dr. Donkin, June 23rd, 1893. No other illnesses than measles and pertussis. Was well up to June 20th, when he complained of pain in lower part of abdomen. Vomited and shivered. Bowels open four times on June 20th, motions loose. He gradually became more prostrate and his face drawn. Was delirious at night and vomited occasionally up to admission. On admission the facies was abdominal and the legs drawn up. Tongue dry, white fur. Temperature 99·4°—100°. Pulse 120, full, soft. Heart and lungs nil. Abdomen distended and resonant, except in right iliac fossa, where there is dulness and a distinct feeling of resistance and tenderness on pressure. Was put on ½ grain opium thrice a day, but as he vomited it was difficult to estimate how much was absorbed. He improved during the first 24 hours,

but then became restless and cried out as if in pain. On the evening of 24th temperature rose to 104·8° and 108°. Died a few hours later.

Post-mortem examination made 34 hours after death (P.M. Book, vol. viii. p. 68). Body emaciated. Lividity of lateral aspects of neck and chest. On opening the abdomen the intestines are seen to be matted together by soft recent adhesions, and the surface of the peritoneum has lost its smoothness. In the right iliac region there is a localized collection of pus containing large flakes of lymph, in all about 3 oz., which has gravitated down to the vermiform appendix, in which about 1½ inch from the end there is a minute perforation. Out of this pus is oozing. The suppurative peritonitis is not, however, at all general, and the great mass of the intestines is only bound together by recent and quite soft adhesions. The intestinal mucosa is hyperæmic in parts of the cæcum, but elsewhere normal. There is a small polypus in the transverse colon. In the vermiform appendix, which is about 4 inches long, is a concretion having the similitude of a date-stone; it is ⅞ inch long. The mucosa of appendix beyond is covered with a layer of lymph, while below there is a minute perforation from which the contents well out. The rest of the abdominal and the thoracic viscera are quite normal.

Case 3.—C. H., aged 14, male; admitted under Dr. Allchin, October 29th, 1893. Was in good health up to October 28th, when he was suddenly attacked with pain in the abdomen and vomiting. A shutter is said to have fallen on his stomach. On October 30th he was prostrate, sweating freely. The abdomen was distended and hard to the feel. There was tenderness in right iliac fossa spreading across the epigastrium. Breathing chiefly thoracic. Temperature 101°. In the afternoon profuse sweating set in, and the patient gradually sank.

Post-mortem examination made 19 hours after death (P.M. Book, vol. viii. p. 136). Body well nourished. Rigor well marked. Eyes sunken. Abdomen distended. On opening abdominal cavity the peritoneum is found to be acutely inflamed. The serous membrane is everywhere much injected, and the peritoneal sac contains a large quantity of fœtid purulent fluid and yellow lymph. The intestinal coils are matted together with

lymph. The gastro-intestinal canal is normal, except the vermiform appendix, which is long, tortuous, and dilated. It lies outside the head of colon, pointing upwards in direction. About 3½ inches from base of appendix is an oval ulcerated hole ⅛ by ⅛ inch, through which fæcal matter is exuding. The distal end of appendix lies buried between parietal peritoneum and that of large gut. Near the base is a fæcal accumulation about size of a large pea. The mesenteric glands are somewhat enlarged. The lungs are much engorged and œdematous. The rest of the viscera are quite normal.

Case 4.—G. S., aged 38, labourer; admitted under Dr. Sturges on February 10th, 1894. Was quite well up to February 9th, except for an attack of abdominal pain and constipation about six months previous to admission, for which he had to lie in bed for two days. Was attacked suddenly with severe abdominal pain on February 9th. Bowels open once after onset of symptoms, but was still able to pass flatus per anum after admission on February 10th. Became gradually worse with frequent vomiting, which became stercoraceous on the morning of February 4th. On this day there was slight jaundice. Abdominal section was performed by Mr. Stonham, who was unable to find any cause for the obstruction. General peritonitis was discovered, and the abdominal lymphatic glands were found to be enlarged. The distended gut was opened and an artificial anus formed. The vomiting continued after the operation, but was not stercoraceous. Died 6 hours after operation. Temperature 97°—101°.

Post-mortem examination made 17 hours after death (P.M. Book, vol. viii. p. 208). Body well nourished. Rigor mortis. Recent surgical wound 6 inches long from umbilicus downwards. Through the wound protrudes a knuckle of gut quite black; the gut is opened to form an artificial anus. On opening abdominal cavity the coils of gut presenting are seen to be of a dark chocolate hue. The gut thus affected is the whole of the ileum and lower half of jejunum. The colour is due to diffuse hæmorrhagic extravasation into the sub-peritoneal tissue, the result of congestion from a double twist of the gut on the mesentery (volvulus). The turn is from left to right. Though the mesentery, which is large, lax, and swollen, is thus twisted it is not congested.

The intestine at and above the volvulus is much distended. It contains a dark brick-red fæcal fluid. The peritoneum is everywhere acutely inflamed and covered with a thin layer of soft lymph, which binds the various coils together. The vermiform appendix is much swollen in its distal half. Its walls are thickened from inflammatory deposit, and there is a perforation with ragged edges at the junction with proximal moiety which is normal. There is no foreign body in the appendix. Round about appendix there is a thickish layer of yellow lymph which has fixed it to the brim of pelvis and also to sigmoid flexure just at its junction with rectum. The abdominal lymphatic glands are somewhat enlarged and soft. There is no enteritis or colitis. Kidneys 12½ oz., soft, pallid, smooth. Bladder contracted. Spleen 3½ oz. soft, flabby. Liver 71 oz., soft, friable, yellow. Larnyx nil. Pleuræ normal. Lungs emphysematous, engorged. Costal cartilages ossified. Heart 17 oz., no diastole. Hypertrophy of left ventricle. Endocardium normal. Arteries normal. Both big toe joints contain a thickish deposit of urate of soda; most in right. Other joints nil.

Case 5.—A. U., female, aged 9; admitted under Mr. Macnamara, June 11th, 1894. Was quite well up to June 8th, when she complained of slight abdominal pain. Went to school. Pain increased. Bowels open thoroughly June 8th at 6 p.m. Vomited green matter during this evening and night. June 9th pain worse. Abdomen beginning to swell. Took very little, and only fluid. Glycerine enema in evening, which acted well. June 10th, all symptoms aggravated. Doctor diagnosed peritonitis. On admission very ill, with all signs of peritonitis. Abdomen tense and tender; distinct swelling in left iliac fossa. Bowels not open since evening of 9th. Temperature 100·4°. On June 10th, at 10 a.m., an exploratory laparotomy was performed; some stinking pus evacuated; no fæcal matter in it. A counter-opening was made and the peritoneal sac irrigated. Child continued to get worse. Bowels not open till 14th, and then only slightly. On 15th slightly several times, but only watery fluid. Temperature just before death 103·8°.

Post-mortem examination, 6 hours after death (P.M. Book, vol. viii. p. 295). Body well nourished. Rigor mortis. Surgical wounds in middle line between umbilicus and pubes,

and also above middle of left Poupart's ligament. On opening abdominal cavity the peritoneum is found to be in condition of acute general suppurative inflammation with deposit of considerable masses of yellow lymph. Most of the inflammatory products have accumulated in the lower half of the abdominal cavity and in pelvis. The intestines are matted together. The vermiform appendix is in condition of ulceration and sloughing. After removal, its basal half is found to contain a firm fæcal calculoid, blocking its orifice. It is about ½ inch long. The outer free edge of appendix is much ulcerated. Rest of intestinal tract normal. Abdominal viscera febrile. No further examination was permitted.

Case 6.—E. S., female, aged 16, domestic servant; admitted under Dr. Allchin, July 31st, 1894. Was quite well up to 14 days before admission, when she ricked herself lifting a heavy table. After this she suffered from abdominal pain, and some diarrhœa. The pain gradually got worse, and 5 days before admission she started vomiting, which continued up to admission, gradually getting worse. On admission she was quite collapsed, almost pulseless; the temperature was below 95°. Skin cold, blue, clammy. Abdomen distended, not tense, but slight general tenderness. Legs drawn up. Pupils dilated. Quite conscious. Tossing restlessly about. Very thirsty. Died 2 hours after admission.

Post-mortem examination made 21 hours after death (P.M. Book, vol. viii. p. 328). Body well nourished. Rigor mortis. Post-mortem decomposition well marked. Abdomen distended. All the viscera are much blood-stained and sodden. On opening the abdominal cavity the peritoneal sac is found to contain many ounces of yellow pus. The serous membrane is everywhere covered with a thickish layer of soft yellow lymph, the coils of intestines and viscera being matted together thereby. Inside the head of the colon, and just above the angle of junction with the ileum is a ragged hole, about the size of a florin, leading into a comparatively large cavity in the subperitoneal connective tissue, filled with debris of broken down tissue, pus, and fæcal fluid. There are also two fæcal calculoids, one squarish, rough, greenish-black, hard; the other softer, buff-coloured, and having the date-stone appearance. The tissue around the cavity is much

thickened from inflammatory deposit, partly old and partly recent. The vermiform appendix lies in this cavity, and is therefore behind the head of the colon. It opens directly into it by a largish aperture. The natural entrance into caput coli is large and free. The mucosa of rest of intestinal canal is quite normal. The stomach contains much blackish olive-coloured fluid; gastric mucosa injected, otherwise nil. Liver, spleen, and kidneys soft, pallid, flabby, otherwise normal. Thoracic viscera normal. Uterus and ovaries normal.

TWO CASES OF DIABETES AND ARTERITIS.

J. G., male, aged 56; was admitted on December 19th, 1892, under Mr. Davy, "for gangrene of the right great toe, cellulitis of foot, and perforating ulcer of foot." Was suffering from diabetes. The temperature of the first week varied between 98° and 100°. The quantity of urine from 66 to 94 oz. per diem; sp. gr. from 1030—1040; quantity of sugar each day about 2,000 grains (yeast test). Arteries hard and tortuous. In the second week patient was probably suffering from septic absorption, and the temperature ranged between normal and 103°. Delirium in 3rd week; later coma and death, January 11th, 1893.

Post-mortem examination made 7 hours after death (P.M. Book, vol. vii. p. 326). Body emaciated; looks as if quite 70. Arcus senilis. Right foot swollen, boggy; big toe as far as ball black, gangrenous, sloughy, bones exposed. On examining soft tissues of sole it is found that they are in condition of diffuse suppuration, as also are those of leg just above ankle. Ankle-joint filled with pus. Brain 38 oz.; skull bones very dense and hard. Dura adherent; subarachnoid œdema; slight atheroma of vessels of base. Nervous tissue firm on the whole. Abscess size of pea in right ascending frontal convolution. Old apoplectic cyst in outer half of right optic thalamus is of the size and shape of big grape-stone. Chest barrel-shaped. Ribs thin, fragile. Costal cartilages ossified. Atrophous emphysema. Left lung universally adherent, right nearly so. Heart 11 ozs. Aortic and mitral valves stiffened and opaque from calcareous deposit, chiefly at bases of cusps and flaps. Some atheroma of

thoracic and abdominal aortas. All the branches of abdominal aorta, those of the four extremities and of pelvis, are in advanced condition of calcareous atheroma. Liver 63 oz., of a brownish colour on section; full of blood. Spleen 6 oz. Kidneys 6 oz., apparently normal. Bladder distended, reaches just above umbilicus. Pancreas, with about 4 inches of duodenum, 6 ozs., is tough; lobules seem wasted. Duct clear. Gastro-intestinal tract nil. Intestines filled with scybala. Microscopical examination. Pancreas quite normal. Kidneys, some evidence of chronic nephritis, but it is almost entirely arterio-capillary, *i.e.*, there is thickening of the middle coat of the arteries, some endarteritis, considerable excess of nuclei on the malpighians, with some thickening of their capsules. The glandular epithelium seems quite normal. The arteries of the leg show (*a*) an endarteritis, (*b*) calcification of the middle coat, the latter change being the more pronounced.

S. G., female, aged 50; was admitted May 9th, 1894, under Mr. Cowell. Until the present illness had fairly good health, though recently had suffered from thirst. The present illness began 7 a.m., on 8th inst., with sudden pain and numbness in the right arm, which from the elbow downwards rapidly became cold and also somewhat shrivelled. On admission the forearm was cold and livid, the fingers were shrunken and in the flexed position. No pulse could be felt in either the radial or brachial artery. The upper arm was warm. Tongue dry and covered with a brownish fur. Breath sweet. Urine (69 ozs. in 12 hours) 1030, sugar; trace of albumen. Over the precordial area is audible a short rough systolic bruit, loudest at the base and to the right of the sternum. Temperature 99°. About 11 p.m. on May 10th became semi-comatose, with laboured, sighing respiration. The coma rapidly increased, and death took place at 5 a.m. on May 11th.

Post-mortem examination made 9 hours after death. Body large and very adipose. Ends of fingers of right hand blue and shrunken. Small umbilical hernia, to the sac of which omentum is adherent. The tissues and organs are soft, flabby, blood-stained, and are already in quite advanced condition of post-mortem decomposition. Brain 41 ozs. Nervous tissue and membranes normal. Lungs emphysematous, otherwise nil.

Pleuræ nil. Heart 11 ozs., much soft black and decolorised clot in right heart; left heart empty. Endocardium and valves normal. All the arteries show slight chronic arteritis. In the aortic arch are two circular patches of acute ulcerative arteritis; one is at the junction of the arch with innominate, the other in the third part of arch. The diameter of both is rather less than that of a three-penny piece. They present themselves as coarse vegetations covered with fibrin. The vegetation mass on the first-mentioned patch is about the size of a bean (it broke down on handling). In the right upper extremity there is a firm adherent clot at the junction of the axillary and brachial. It is about 3 inches long. The artery where it is plugged is firm and round. The lower part of the clot is soft, granular, and disintegrating. Beyond this clot the distal portions of the artery are blocked with soft black clot, easily drawn out. Liver 69 ozs., very flabby, of a yellowish brown colour. Spleen 4 ozs., soft, flabby. Kidneys 15 ozs., soft, yellowish, though blood-stained. Capsules adherent. Cortex granular. Pancreas about 6 ozs., whitish in colour, firm. Gastro-intestinal tract nil. Uterus and ovaries nil. Cover glass preparations from the clot in brachial did not reveal any micro-organisms (Gram). The aorta was not examined microscopically. Sections of the pancreas showed that it was quite normal.

Remarks.—Though the clinical records of these two cases are somewhat meagre, I have inserted them to illustrate the connection between diabetes and arteritis. With regard to chronic arteritis the connection is well known, though I think myself that too much stress has been laid upon it; for atheromatous conditions of arteries, and perhaps especially those of the lower extremities, are of such frequent occurrence that it does not appear strange that the two should be associated occasionally. Microscopical examination of the first case showed an endarteritis, and also calcification of the middle coat, the latter being the more pronounced. Now while this form of degeneration is a constant accompaniment of arteritis, it should be noted that these particular arteries showed considerable calcification, and it would not be unfair to conclude that this increased amount of degeneration might be due to the diabetes. For if arteries are really affected by diabetes it would be a proper inference from the nature of the disease, and from some of its complications (*e.g.*,

cataractous lens), that they would suffer from a primary degeneration rather than from one consecutive to inflammation. Hence calcification of the middle coat, pure and simple, would be expected rather than the phenomena of arteritis, though of course these might be present. I presume that many would call this case an instance of diabetic gangrene; I should prefer to call it diabetes and gangrene. Case 2 is far more interesting. Here the arterial system generally showed some evidence of chronic arteritis, but it was slight and early. But in the aorta were two patches of acute arteritis; these two patches had a rough resemblance to the vegetations seen on the cardiac valves, and in no way did they recall an atheromatous ulcer. They were well delimited. Upon one fibrin had been deposited, and the thrombus breaking off had embolised the right brachial. The mechanism of the embolism was simple enough, but from what cause the focal aortitis of such intensity had arisen is mysterious. Cover glass preparations of the juice expressed from the clot were negative. The condition of the pancreas is worth noting. In both cases they were of good size, and microscopical examination did not reveal anything abnormal. In quite a number of cases where there was no sugar in the urine, I have examined the pancreas, and frequently found degeneration appearances in the epithelium, especially about the centre of the lobules, so that even if such appearances had presented themselves, I should not have laid undue stress on them any more than I should on some conditions of the arteries.

THREE CASES OF HYDATIDS.

C. W., aged 12, school-girl, living in Blackfriars; was admitted under Dr. Allchin on January 26th, 1894, for a swelling in the region of the right lower ribs, which was first noticed two years previously. The swelling has gradually increased, and has never been attended with pain. On admission the lower part of the right thorax was considerably bulged. In the epigastric region is a tense tumour, which extends to under the right costal margin. The tumour is dull on percussion, and dulness extends upwards to the lower border of the fifth rib on right side, and on the left is continuous with the cardiac dulness. At the back there is dulness

up to level of the tenth dorsal spine, and on the left to the level of the eleventh dorsal spine. Fluctuation can be felt in the tumour on the right side. The heart is pushed up, the apex being in the nipple line. The child left the hospital on February 18th, after being an in-patient for 23 days. She remained in good health up to the evening of March 20th, although the tumour had obviously increased in size. On the evening of March the 20th began to vomit. Walked to hospital next day, and when seen on admission was blue and collapsed. There was evidence of fluid in the peritoneal sac, but no pain or tenderness. Temperature 96·4°, rising to 103·8° before death, which took place about 10 hours after admission.

Post-mortem examination was made by physician-in-charge 14 hours after death (P.M. Book, vol. viii. p. 238). There are fully three pints of bile-stained tolerably clear fluid in peritoneal sac. In the posterior part of the right lobe of the liver is a thick-walled cyst about the size of a child's head. It contains a sterile hydatid cyst. At the lower and outer part it has ruptured, the ragged aperture admitting the tip of fore-finger. The lower surface of cyst is slightly adherent to the hepatic flexure of colon. The cyst occupies all the right lobe. The left lobe is much enlarged. There is a second small cyst the size of a hen's egg. It contains a white grumous fluid, in which there is debris and cholesterin crystals, and it lies in the position of the ductus venosus. The gall-bladder contains a small quantity of dark bile. The liver weighs 54 ozs. Both lungs are much congested. The other viscera are not note-worthy.

E. S., aged 29, married; was admitted under Dr. Potter on May 12th, 1894. Is a primipara. Has suffered from epileptic fits since age of 21. There is a family history of insanity. Was laid up for some time with "Inflammation of the liver" circa 18—19 years old, and since this has had several attacks of "Inflammation of the stomach." Was sent in for "Uterine fibroid obstructing labour, or extra-uterine fœtation." Was examined by Dr. Potter on admission. A spheroidal very hard mass lying to the right of the pelvis led to the diagnosis of uterine fibroid in pelvis. Labour pains came on 3 a.m. on 13th. Was seen by Dr. Pollock at 4 p.m., and the diagnosis confirmed.

Cæsarian section was performed at 7 p.m. by Dr. Pollock, Messrs. T. Bond and W. G. Spencer assisting. The operation was facile and satisfactory, and a female child at full term was delivered alive. Temperature at 7 a.m. on 13th was 101·2°, falling twelve hours afterwards (operation) to 97·8°, after which it gradually and steadily rose till death, which occurred at 3 a.m. of 16th, when it reached 105°—106°. Urine contained neither albumen nor sugar.

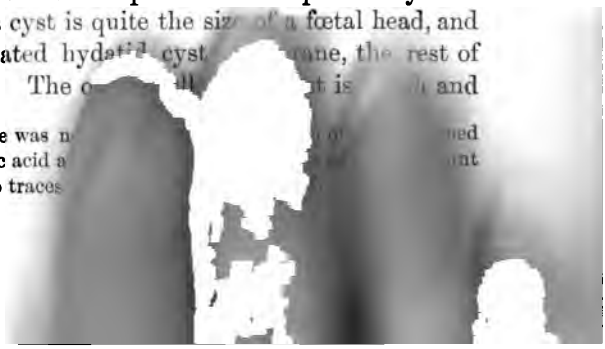
Post-mortem examination made 12 hours after death (P.M. Book, vol. viii. p. 271). Body well nourished. Abdomen much distended. Skin greatly pigmented. Surgical wound in middle line of abdomen 7 inches long; edges united by sutures; stitches still in. Excurvation of tibiæ. On opening the abdominal cavity the stomach and intestines are found to be greatly distended with gas. The peritoneum is in condition of acute general peritonitis, most marked about pelvis, on the viscera of which there is some deposit of purulent lymph. In the lower part of peritoneal sac there is a small quantity of sanious fluid. The uterus is in condition of recent delivery; it is 7 inches long, and 6 inches across fundus. The viscus as a whole feels boggy; its walls are thick and flaccid. To the left of the middle line of the anterior surface is a surgical wound 5½ inches long; its edges are held together by stitches, some of which are parting. On the right side of pelvis, and pushing the uterus somewhat over to the left, is an ovoid tumour 7 inches long and about 6 inches across. Above, it projects into the upper pelvis, and below it can be easily felt from vagina as a tense firm bulging on the right side of the canal. It lies in the subperitoneal pelvic connective tissue, the right ovary being placed immediately above it. On incision it was found to be a hydatid cyst with numerous secondary cysts inside. The uterus was laid open from behind; its cavity contained some soft black clot, and the fundal mucosa was very ragged and rough from placental remains. Ovaries normal. Bladder distended, reaching above pubes, otherwise nil. Gastro-intestinal tract normal. Kidneys 15 ozs., "febrile," otherwise nil. The ureters and pelves of the kidneys are greatly distended with a clear urine. Spleen 5 ozs., soft, flabby, dark. Pancreas normal. Liver 64 ozs. At front edge of right lobe just to left of the gall-bladder is a spheroidal hydatid cyst [illegible] thickened fibrous

capsule, to which the omentum is adherent in front. Diameter 2½ inches. Left lobe of liver very small. Hepatic structure normal. Lungs congested, otherwise nil. Heart 11 ozs.; muscle dark, soft, otherwise nil. Aorta and larger arteries of trunk are in condition of moderate atheroma.

J. P., female, aged 29; was admitted under Dr. Donkin. Is a bottle-washer, married, two children. Was born and lived in London all her life. Always enjoyed fairly good health until the beginning of February, 1894, when she was attacked with pains in the left side, and her breath became short. Continued her work until March 4th. Was admitted the first time on March 18th, at which time there was but little emaciation. The chest bulges, noticeably on the left side. Heart's apex beat is in third left interspace. On the right side there is dulness in front from the fourth rib downwards, and behind from the eighth dorsal vertebra; on the left side from about 2 inches below angle of scapula. The breath sounds all over the dull area are very indistinct and bronchial in character. The liver is much enlarged; its edge can be felt as low as level of umbilicus, and it occupies the epigastrium and both hypochondria; it moves with respiration, and there is distinct bulging at epigastrium. On March 20th the tumour was punctured, and a clear watery fluid drawn off (sp. gr. 1010; chlorides, but no albumen). It was punctured again on 21st and hydatid hooklets discovered. About two pints of fluid were withdrawn; the patient was much relieved; the heart's apex descending to fourth interspace, and she left the hospital on April 21st. She remained fairly well until May 12th, when the pain in right side and dyspnœa came on again. On readmission, May 16th, there was considerable dyspnœa even at rest. The cyst which had caused the bulging of left thorax had now apparently refilled, for the bulging was now much the same as it was when she first came to the hospital. On the right side there was also considerable bulging with dulness from the level of fourth rib downwards to four fingers-breadth below costal margin, where the liver edge could be felt. Over the area of dulness the respiratory sounds were almost absent. With rest in bed the dyspnœa much diminished. On May 23rd clear fluid was obtained from the dull area at the back of right chest, on a

level with ninth spine. The fluid contained chlorides but no hooklets. The temperature rose after exploration to 100°—102°. On May 28th Mr. Stonham removed from the mid-axillary line a portion of the ninth rib, and the pleural sac having been opened, left it so that adhesions might form. On June 2nd the wound was carried through the diaphragm, and again left for adhesions to form. On June 5th owing to increased dyspnœa the cyst was aspirated through the wound, and 52 ozs. of clear watery fluid were withdrawn. Next day the cyst was laid freely open. After this the patient somewhat improved, but subsequently became weaker and weaker. From the wound there was a profuse discharge of bile-stained purulent fluid, which oft-times contained hydatid membrane.* The patient steadily became weaker, wasted rapidly, and took very little food. The dyspnœa continued. There was considerable bronchitis. Temperature varied from 98°—102°, falling to normal for a few days before she died on July 21st.

Post-mortem examination made 47 hours after death (P.M. Book, vol. viii. p. 316). Body much emaciated. Skin of a pale drab-brown hue. Left thorax bulges in front considerably. Surgical wound in right flank, part of ninth rib having been removed. The aperature leads into a long narrowish cavity running along upper part of right lobe of liver. It is lined by granulation tissue, and is almost empty. The external wound also communicates by a narrow fistula with the right pleural sac. In right pleural sac is an encysted empyema occupying greater part of right thorax; the lung is, however, free at its posterior and upper parts, the empyema sac lying in front and below. It contains about a pint of purulent fluid. The right lung is much compressed (semi-carnified), but in other respects is not noteworthy. Left lung and pleura normal. Heart 8 ozs., and pericardium normal. In the peritoneal sac and at its upper part, just below left lobe of liver, is a little (an ounce or so) greenish yellow slimy pus, which has escaped from a ruptured hydatid cyst in left lobe. This cyst is quite the size of a fœtal head, and contains a thick laminated hydatid cyst [illegible]ane, the rest of its contents being pus. The c[illegible]t is [illegible] and



* The notes say that there was n[illegible] [illegible]ed both specimens. Cold nitric acid a[illegible] [illegible]nt of albumen. There were no traces

fibrous, its internal aspect being covered with a deposit of rough yellow lymph. It is located in the posterior part of the left lobe, the front of which, though small, remains. At its inferior aspect the cyst is adherent to the stomach and spleen. The liver tissue is soft and flabby, and presents a nutmeggy appearance on section. Gall-bladder contracted. No peritonitis. Gastro-intestinal tract normal. Spleen normal. Kidneys 11 ozs., normal. Bladder normal. Uterus large. Os fissured. Mucosa covered with sanious fluid. Ovaries normal. Microscopical examination of the pus from the abscess shows numerous small hydatids and free hooklets.

PRIMARY MALIGNANT DISEASE OF THE KIDNEY.

CASE 1.—E. C., male, aged 55; was brought in moribund on December 14th, 1891. The only history obtainable was that while on his way to St. George's Hospital he turned faint in St. James' Park, where he was found by the police. Was conscious when admitted, but too ill to be examined or questioned much. Died soon after admission.

The post-mortem examination was made 40 hours after death (P. M. Book, vol. vii. p. 30). Body spare, but not ill-nourished. No marks. Rigor persistent. Brain 48½ ozs. Membranes and nervous tissue normal. Fauces, larynx, and pleuræ normal. Left half of diaphragm pushed up by spleen, and this in its turn by left kidney. Lungs emphysematous. Bases engorged. Firm decolorised laminated fibrinous clot plugs the right pulmonary artery. It is exactly similar to that found on the right heart, and that which escaped from the dilated renal vein. Left pulmonary artery normal. Bronchitis. The upper division of right bronchus is much narrowed, the stenosis apparently being of congenital origin. Pericardium normal. Heart 15 ozs. Structurally normal. In right ventricle is some firm decolorised clot, like that in renal vein, and from which it presumably was detached. The left kidney is 7 inches long and 4½ inches broad. The left renal vein is extremely large, quite twice or even thrice its ordinary size. It is distended with some firm laminated fibrinous clot which escaped on handling, and nearer the kidney with a soft brain-like mass, apparently partly thrombus and partly a new growth, which had eaten its way from the kidney.

The enlargement of the kidney is due to a new growth affecting the upper two-thirds of the organ. To the naked eye the infiltration is divisible into two portions, the lowermost being the more recent. This consists of an aggregation of spheroidal masses of variable size. They are pinkish white in colour, and of soft consistence. The upper half of the affected portion is now occupied by a series of spaces bounded by fibrous tissue, and containing fluid or semi-solid substance of a dark brown colour. At one spot there is a cretaceous nodule about the size of a bean. The cystic portion is probably a degeneration condition. The left renal vein when incised showed that it was distended with a soft brain-like pinkish growth in continuity with that of the kidney. The left ureter is much thickened all the way down, but is perfectly pervious. The right kidney is large, but normal. The bladder is contracted; the vesical mucosa about the trigon is injected, in other respects normal. The adrenals are normal. The great omentum is adherent to left kidney. Gastro-intestinal tract normal. There are no secondary deposits anywhere. Spleen and liver normal. Thyroid normal. Left bubonocele. Microscopical examination of the soft mass in renal vein when fresh showed that it was composed of epithelial cells, in shape irregular, varying in type from squamous to cylindrical. Nuclei large and round. Cell plasma relatively large. In every cell is a greater or less number of spheroidal highly refracting bodies with yellowish reflex. Microscopical examination of sections after hardening shows large cells of variable shape, but with distinct tendency to columnar type. The irregularity of shape is chiefly due to over-crowding. The nucleus is large and round. The cell plasma is relatively large. The cell outline is extremely clear and well defined. The plasma is unusually tenuous, so that the cells seem almost as if made up of nucleus and cell wall. In general arrangement the neoplasm consists of areas demarcated by a fibrous stroma in which run blood-vessels. The stroma is of variable thickness, and the areas of unequal size. The areas are filled with the above-mentioned cells, and thus a superficially glandlike appearance is imparted to the neoplasm. It is, however, a proliferating growth of unusual size. In the parts examined the sections do not exhibit any tendency to degeneration.

CASE 2.—H. M., female, aged 42; was admitted under Dr. Sturges on November 14th, 1892. Is a married woman living at Nine Elms. When admitted was in a very stupid condition, and so remained. It was impossible to obtain any clear history from her, and she had no friends. Six months before admission she fell down in a fit, remaining unconscious for two hours. During this time her mouth was drawn to the right, and her left arm became weak, but she never completely lost the power of it, and her leg was not affected at all. During the next fortnight she had three more fits, which left her in much the same condition. A month before admission she had another fit, and after this she found the leg also was affected and the arm and face more than before; there was also some loss of sensation. She stated that she had improved since, but this is unlikely. No history of previous health was obtained. On admission it was found that there was marked loss of power of left arm and, though less so, of leg; the mouth was drawn to the right, and the tongue protruded slightly to the left. There was some loss of sensation of left side. Heart overlapped, first sound prolonged, no murmur; second sound accentuated. Emphysema. Urine acid, 1010, albumen a trace. Nothing abnormal in abdomen was noticed. She passed her urine and motions in the bed. On November 22nd she had an attack of convulsions without loss of consciousness, and with tremors of both arms. During the next month she somewhat improved in her movements, but was very irritable, and her memory became more defective; she could articulate fairly well. Still continued to pass her motions in bed. On December 29th her temperature began to rise from normal to 104°—105°. She vomited frequently, became unconscious, and died 24 hours later.

Post-mortem examination made 36 hours after death (P.M. Book, vol. vii. p. 315). Body emaciated. Projecting from lower part of right hypochondriac region is a tumour about the size of a cocoa-nut. No other marks. Brain 48 ozs. Convolutions flattened. In the right hemisphere are two tumours, spherical in shape, and both involving the cortex. They are quite soft, friable, red, granular-looking neoplasms, sharply defined from the adjacent nervous tissue. One with a diameter of 1⅛ inch is situated in the parietal region, occupying the supra-marginal convolution and just crossing the intra-parietal fissure; the

other, with a diameter of ¾ inch, is located in the upper frontal convolution adjacent to ascending frontal. Rest of the brain nil. In both lungs are secondary deposits (2) about the size of hazel-nuts. Pleuræ and thyroid nil. Heart 10 ozs., normal. Liver 55 ozs., and spleen normal. Right kidney weighs 34 ozs., is very irregular in shape, and is infiltrated throughout with a malignant neoplasm which has grown into the renal vein (Museum specimen 814A). Left kidney 13 ozs., is also seat of numerous masses of cancerous deposit; most are spheroidal in shape, of soft consistence, easily breaking down on pressure, and granular in appearance. They are sharply delimited. Very little normal renal tissue remains. Ureters and bladder nil. Uterus and ovaries nil. The left iliac muscle is quite disorganised from the presence of deposit, and a large quantity of soft clot filling the hollow of the bone. Microscopical examination of the lung deposits shows a carcinomatous neoplasm, having under low powers a gland-like arrangement. The cells have largish round to oval nuclei, and a relatively small amount of plasma. A close observation shows that the gland-like appearance is probably accidental, for the cells are packed along vessels, and their mode of extension is dendritic or ramifying, and proliferative would perhaps be the most suitable term. In other parts the pulmonary alveoli are packed with cancer cells, which do not show any particular arrangement. The neoplasm would be designated glandular or adenoma-carcinoma.

CASE 3.—H. L., male, aged 53; was admitted under Dr. Donkin on May 7th, 1894. Is a cook living in Camberwell. Nineteen years ago injured himself in the right loin, and was laid up for 5 weeks with severe pain in that region. But for this was quite well up to October, 1893, when he had to give up work on account of pain in the right loin. The pain steadily got worse, and he wasted. Two months before admission he noticed blood in the urine on two occasions. On admission he was very prostrate and emaciated. Pulse small, artery rather rigid. Heart and lungs normal. On the right side of abdomen is a swelling extending to the loin; its boundaries are difficult to define owing to its great tenderness and the rigidity of the abdominal walls. There was a sense of deep fluctuation. The

liver dulness is continuous with the dulness of the swelling. The superficial abdominal veins are enlarged and tortuous. Urine, 1007, acid ; albumen $\frac{1}{15}$; pus. On May 9th the tumour was examined with exploring syringe but no fluid was obtained, and the needle was held firmly. Patient gradually sank, and died rather suddenly on May 11th. The temperature, normal at first, rose to 101° just before death.

Post-mortem examination made 12 hours after death (P.M. Book, vol. viii. p. 267). Body much emaciated; abdomen retracted; in the right lumbar region is a firm hardish bulging; the right lower extremity except foot is much swollen from general œdema of the soft tissues; the veins of this extremity are occluded by soft black clot. On opening the abdomen a firm tough growth is found occupying the site of the right kidney. It is firmly adherent to the under surface of the right lobe of the liver, and extends across the abdomen to beyond the spine. The kidney is $6\frac{1}{2}$ inches long, and the malignant mass, kidney plus prevertebral glands and other infected tissues, measures $7\frac{1}{2}$ inches transversely. On incision the renal tissue is found to be absolutely supplanted by a firm white growth of fleshy consistence. The pelvis of kidney is nearly obliterated owing to masses of white fibrous tissue. Within it are two hard almost black calculi weighing $\frac{1}{2}$ oz. The right ureter is much dilated and thickened, and is filled with a greenish yellow curdy pus; it is quite pervious. The bladder contains several ounces of purulent urine. In the prostate are two comparatively large calculi. The prevertebral glands are much enlarged from the malignant infiltration, and form a mass the size of a fist, which pushes the stomach, duodenum, and pancreas forward. The growth has pressed upon and eaten into the inferior cava, and can be seen as large warty excrescences in the lumen of the vessel. These ingrowths have caused the deposit of a firm adherent clot which occludes the cava for a distance of 6 inches. The upper end of the clot, which is quite smooth, terminates abruptly behind the liver, while below it extends to the common iliac vein, spreading into the veins of right lower extremity. In the liver are numerous spheroidal white firm growths, which vary in size from a pea to a marble. Some of these are discrete and metastatic, but some are derived from direct infiltration (continuity growths), the liver and kidney being adherent. In

other respects the liver seems fairly normal. Left kidney 6 ozs., normal; spleen 5 ozs., normal. Gastro-intestinal tract fairly normal, though the ascending and transverse colons are adherent to the mass, and a few nodules of the growth are imbedded in the outer part of the intestinal wall. Biliary and pancreatic ducts pervious. Left adrenal normal; right is involved in the growth. Heart 12 ozs., firmly contracted; some soft decolorised and black clot in right cavities. Aorta atheromatous. Pleuræ free, smooth, shiny. Lungs emphysematous, otherwise nil. Two or three mediastinal glands are infiltrated. Microscopical examination of the kidney showed appearances exactly similar to those of squamous epithelioma of the skin, *i.e.*, there are irregular masses or areas of epithelial cells, the central parts of which areas are keratinised. There are many cell inclusions. The prickle cells are very obvious in kidney, liver, and gland. Under the circumstances endothelioma would be more correct than epithelioma.

CHRONIC HYDROCEPHALUS.

G. D., male, aged 2; was admitted under Dr. Sturges, December 28th, 1891.

Had been at home ill for the past 4 weeks, the symptoms being vomiting, especially after food, feverishness, pain in the head, and sleeplessness. Was extremely fretful, screaming when touched.

Ten months previously had been in Victoria Hospital with inflammation of lungs and empyema, for which resection of rib had been performed. Father's brother and sister died of phthisis.

On admission was a fat, healthy-looking child, large for his age. Temperature 103·6°, falling at noon next day below normal. Screamed when touched. Heart, lungs, and abdomen nil. Pulse regular and respiration quiet.

The symptoms, which remained for many weeks the same, were as follows:—The temperature would rise to 103°—104°, and when at its height the child screamed loudly, was extremely fretful and irritable, his cheeks were flushed, and he would put his hand to his head as if in pain. This was usually accompanied by vomiting. The temperature then fell to 97°—98°, when the

child became placid and amiable, and seemed quite well. With rare exceptions these alternations occurred daily, the temperature then might remain down for a day or two. The pulse was regular, and no physical signs of any sort were discovered. The optic disks were examined by Mr. Cowell and found normal; the ears by Mr. Black and found normal; while to make assurance doubly sure both the membranes were punctured with negative result. Microscopical examination of the blood also negative.

The original diagnosis was meningitis, but later, in view of the regularity of the temperature variations and the long duration of the symptoms, the opinion veered towards cerebral abscess. Quinine was given with negative result. On March 3rd there was slight cough, with some scattered rhonchi over the chest. There was no marked change till the middle of April, except steady emaciation. The child was very intelligent, and made great progress with his talking. On April 24th, after the customary rise of temperature, he became very drowsy and difficult to arouse. If put in the sitting posture there was a tendency to fall to the left side. This occurred several times, but in the intervals he became quite himself. On May 4th convulsions commenced, the left side being generally more affected than the right. On the 10th the pulse was irregular, the child comatose, and double optic neuritis was found by Mr. Cowell. Died May 11th. The urine was throughout free from albumen. Blood cultivations made by Dr. Abraham were negative, though in two cultures, probably from accidental contamination, staphylococcus pyogenes albus was found.

Post-mortem examination made 22 hours after death (P.M. Book, vol. vii. p. 138). Body emaciated. Skin of abdomen green. Extremities stiff and rigid, being in position of tonic spasm. Fingers and toes bent. Shape of body generally quite normal. Head of natural size. No signs of rickets. Skull-cap normal as to ossification and development; is easily removed from dura. Dura and sinuses normal. Ears normal. Convolutions flattened; fluctuation of hemispheres. Arachnoid smooth and shiny. No fluid escaped from ventricles on removal. Brain 41 ozs. Immediately behind the optic chiasma is a small, flat, thin patch, about ½ inch in diameter, of cream-coloured deposit. Besides this similar material was found

in both sylvian fissures, at centre of inferior surface of both halves of cerebellum, and at posterior horn of left lateral ventricle; all these five are of quite minute size; they are apparently of inflammatory origin, but are not tubercular. There is abnormal adhesion of the pia in both sylvian and in the antero-median fissures. The choroid plexus is thin, attenuated, and adherent (but not firmly) to the floor of the lateral ventricles. The veins of Galen are well marked. The lateral ventricles are much dilated, and filled with a clear watery fluid. The distension of the ventricles is great, but everywhere symmetrical, and the various cornua and projections have preserved their normal shape; while the walls of the ventricles, *i.e.*, in the grey and white cerebral substance, is thinner than normal, there is relatively less atrophy of the grey than the white substance. Everywhere the nervous substance is quite firm. Spinal cord, nervous tissue firm; normal in appearance; some excess of subarachnoid fluid. Fauces and larynx nil. In left thorax there has been resection of about ¾ inch of sixth rib in mid-axillary line. Left pleural surfaces universally adherent by old and thin adhesions. Right pleura smooth and shiny. Both lungs crepitant, but left seems smaller and right larger than normal. Heart and pericardium normal. Abdominal viscera perfectly normal. There are no enlarged or caseous lymphatic glands in any part of the body.

Microscopical examination of the spinal cord showed slight but distinct leptomeningitis, with excess of the connective tissue element in lateral and posterior columns.

CEREBRAL HÆMORRHAGE.

CASE 1.—R. W., male, aged 50; was admitted under Dr. Sturges on March 21st, 1893. Is a coal vendor, living in Westminster. Was admitted in a moribund condition, deeply comatose, passing urine and fæces under him. The attack had come on suddenly an hour before admission, when he was carrying a sack of coke upstairs. He lost consciousness at once, and his left arm and leg were found to be powerless. His coma rapidly increased, and on admission the paralysed side could not be distinguished. There was external strabismus of both eyes. He rapidly got

worse, and died two hours after admission. During the 12 years his wife had known him had never had any previous serious illness.

Post-mortem examination, 26 hours after death (P.M. Book, vol. vii. p. 383). Body well nourished. White scar on penis. Brain 57 ozs. Dura thick. Pia thick and opaque. Convolutions flattened; surface drab. On making a median section it is found that the ventricles are filled with soft black clot, and that the left basal ganglia and parts adjacent are ploughed up and disorganised by the extravasation which has evidently arisen in the corpus striatum. It has then burst into right lateral and third ventricles, and passed along iter into fourth, from whence it passes out laterally on both sides of medulla, where it projects in front and between cerebellum and its peduncles. The clot is about as big as a small orange. The vessels at the base are atheromatous. Lungs emphysematous, œdematous. Right pleura adherent. About and above the root of right lung is a mass of induration and consolidation. It is pigmented, and a mixture of fibrosis caseation and chronic pneumonic consolidation. Heart 13 ozs., nil. Liver 73 ozs. General colour red, but mottled all over with irregular areas of pale buff colour, which are apparently swollen lobules. Consistence normal. Spleen 10¼ ozs., soft, flabby, almost diffluent. Kidneys 6¼ and 5¾ ozs., nil.

Case 2.—T. B., male, aged 60; was admitted in a moribund condition, dying very shortly afterwards. No history was obtained of his illness beyond the fact that he had become unconscious a few hours previously. When admitted he was quite comatose and pulseless.

Post-mortem examination made 20 hours after death (P.M. Book, vol. vii. p. 48). Body spare. Rigor well marked. Knee joints swollen; ends of bones enlarged; excess of fluid; synovia quite clear. Except the shoulder and hip joints, all the joint cartilages are covered with a thickish layer of urate of soda. No tophi in auricles. Joints of feet not swollen or enlarged. Joints of hands nodose. Left joints of both extremities show the nodosity and the gouty deposit best. Brain 51 ozs.; skull-cap thick; dura thick and adherent. Convolutions of right hemisphere flattened. In the right

hemisphere is a soft black clot weighing 2½ ozs. The substance of the hemisphere is extensively disorganised, the outer half of the basal ganglia and the adjacent white matter being quite destroyed. The hæmorrhage has passed into the third ventricle, along iter into fourth ventricle, which is filled with soft clot. Left hemisphere nil. The pia and the arteries seem fairly normal. Some few old pleural adhesions. Lungs œdematous, engorged, friable. Heart 16 ozs. Left ventricle greatly hypertrophied; endocardium normal. Spleen 1¾ ozs., of a brick-red hue, very soft, friable; capsule thin, adherent. Kidneys 3½ and 6½ ozs., pale red, mottled with yellow areas; consistence flabby, surface coarsely granular; capsule somewhat adherent; cortex much wasted, numerous cysts in both, two in right very large. Bladder nil. Gastro-intestinal tract nil. Arteries generally are to naked eye normal.

Case 3.—J. S., male, aged 25; was admitted under Dr. Donkin on May 4th, 1893. Is a wool sorter, living in Kennington Road. Family history unimportant. Had scarlet fever æt. 10. Suffered from winter cough for some years. Two years ago was in Dorset Hospital for inflammation of kidneys. For the past 2 years has not felt well. Has become weak, and lost his appetite. He vomited often in the mornings, but never had hæmatemesis, except on one occasion. No diarrhœa; emaciation. On admission he was sallow and cachectic-looking. No œdema. Nothing abnormal in lungs. Heart's apex in nipple line; impulse heaving; no murmur; second sound accentuated. The abdomen was distended, and a hard mass could be felt in the situation of the great omentum, stretching across from below the right lobe of the liver to the left hypochondrium. It is tender and somewhat irregular. Nothing else abnormal in abdomen. Rectum was not examined, but a mass was felt in the region of the sigmoid flexure. Urine alkaline, 1010, much albumen. During the next 3 weeks was sick occasionally; lost some flesh. Albumen about the same. From May 20th to 30th there was profuse diarrhœa, accompanied by pain, but no blood. On June 2nd had severe headache, and soon after lost power of his left arm and leg. The paralysis increased, and became complete. Face not much affected. Increased knee jerk and ankle clonus. Temperature rose to 100°—101°,

Gradually became completely comatose, and a few days before death there was some rigidity of the right side, but no definite paralysis. Gradually sank, and died June 7th.

Post-mortem examination made 16 hours after death (P.M. Book, vol. viii. p. 53). Body much emaciated; no special marks. Brain 53 ozs. Dura adherent. Convolutions somewhat flattened, more so on right side; surface of a pale drab hue. On removing brain some sanious fluid escaped from the right temporo-sphenoidal lobe. On section a soft black clot about the size of a walnut was found lying outside the right basal ganglia, and in the middle of an area of softening; the softened area is as large as a turkey's egg. The tissue involved is the outer portion of the optic thalamus and the white matter outside the ganglia, chiefly that of the temporo-sphenoidal lobe. The hæmorrhage has not invaded the ventricular walls, but in the other direction has reached the cortex of temporo-sphenoidal lobe. The vessels of the pia seem normal. Larynx nil. Some few old adhesions at both apices, which are puckered and indurated from the presence of pigmented fibrous tissue, fibroid tubercles, and encapsuled caseations. In other respects the lungs, though œdematous, are fairly normal. Pericardium normal. Heart 13 ozs. Endocardium normal. Left ventricle hypertrophied. The peritoneum, except that covering the stomach, small intestine, and colon, is much thickened, the parts principally involved being the omentum, mesentery, and pelvic peritoneum. The sac contains a considerable quantity of ascitic fluid. The pelvis is filled with a dense hard mass, partly due to infiltration of the peritoneum, and partly to cancerous deposit in the gut at the recto-sigmoid junction. The cancer is a firm or rather indurated white growth, which has spread by continuity. In most places it is a collection of flattish nodules, but in the omentum it is a continuous infiltration. The great omentum is thickened and shrunken to a band about ¾ inch broad and ½ inch thick. Except the vermiform appendix, which is much thickened and its cavity almost obliterated, and the recto-sigmoid junction, the gastro-intestinal tract is normal. At the junction there is cancerous infiltration of the gut for a distance of 2 inches. The wall of the gut is nearly an inch thick, and the internal surface considerably ulcerated. The neoplasm has the shiny, gluey look of colloid carcinoma. There are no enlarged

lymphatic glands anywhere. Kidneys together weigh 4½ ozs.; capsule adherent; surface granular; cortex much wasted; consistence flabby; colour pale red, mottled with many yellowish striæ and areæ. Spleen 4 ozs., nil. Liver 52 ozs., nil.

CASE 4.—R. McK., female, aged 52; was admitted under Dr. Sturges, November 21st, 1893, in a semi-comatose condition, with palsy of the right side and anæsthesia of left conjunctiva. Died shortly after.

Post-mortem examination made 25 hours after death (P.M. Book, vol. viii. p. 155). Body spare; rigor mortis; front of thorax rounded; well-marked osteo-arthritis of big toe joints, left most. No other marks. Brain 50 ozs; convolutions flattened. Arteries of pia very atheromatous. Large soft black clot filling both lateral ventricles; the hæmorrhage has proceeded from the left optic thalamus, which is quite disorganised, while the adjacent parts of corpus striatum on the one side and crus cerebri are also ploughed up. No clot in iter; costal cartilages ossified. Pleuræ free, smooth, shiny, except at apices, where there are a few old adhesions. Lungs œdematous and much engorged. Pericardium nil. Heart 15½ ozs.; in systole. Endocardium nil. Left ventricle much hypertrophied. Gastro-intestinal tract nil. Liver and spleen nil. Kidneys 8 ozs., capsule thick, adherent, surface finely granular; cortex wasted, colour red; consistence firm. Uterus large; os fissured; ovaries hard, shrivelled. The arteries throughout the body show well-marked degeneration, though this condition is much more advanced in the cerebral arteries than elsewhere.

CASE 5.—J. G., male, aged 68; was admitted under Dr. Allchin on November 27th, 1893, with right hemiplegia. There was a trace of albumen in the urine. The temperature ranged between 98° and 101°. Gradually became weaker, and the breathing laboured, up to death on December 4th.

Post-mortem examination made 17 hours after death (P.M. Book, vol. viii. p. 163). Body well nourished. Rigor; pigmented scars on front of both legs. Joints of hands and feet show large deposits of urate of soda. The joints are much enlarged and show well-advanced degeneration changes. Brain 46 ozs. Subarachnoid œdema. Pia thickened. Arteries at base

in advanced condition of calcareous atheroma. In the left basal ganglia is a hæmorrhage the size of a walnut. The optic thalamus is totally destroyed, and also the posterior portion of corpus striatum. The hæmorrhage has passed outwards and appears just on the surface of the insula at its posterior half. The rest of the brain presents nothing noteworthy. Larynx nil. Pleuræ nil. Lungs emphysematous, œdematous, pigmented, some engorgement of bases and about roots where they are friable. Suppurative bronchitis. Peritoneum nil. Gastro-intestinal tract nil. Liver normal. Spleen small, flabby, dark. Kidneys 7½ ozs.; capsule adherent; surface granular; cortex diminished; consistence flabby, colour mottled red and yellow. Bladder nil. Pancreas large, firm. Heart 18 ozs. Peri- and endocardia normal. Great hypertrophy of left ventricle. The arteries generally, with the exception of the cerebral, show only a moderate degree of arteritis, and there is no calcareous deposit except in some few branches of the abdominal aorta.

CASE 6.—J. V., male, aged 59; was admitted under Dr. Sturges on January 16th, 1894. Is a newspaper seller living in Westminster. Except that his feet used to swell at night, has been in good health up to January 15th. He then noticed, while in bed, some weakness of the left leg. This passed off completely, but later in the day he was suddenly seized with weakness in the left arm and leg. There was no loss of consciousness. On admission there was paresis of left arm, leg, and face. Pupils equal. Voice thick. This palsy passed off rapidly, though on January 18th there was some stiffness in the left limbs. Pulse very resistant; trace of albumen in urine. On January 22nd he became excited, and then suddenly lost power over the left arm, leg, and side of face. Became rapidly comatose with stertorous breathing. Pupils equal, contracted. The temperature was normal up to January 23rd, when it rose rapidly to 105°, sinking to 103·8° at death, January 24th.

Post-mortem examination made 16 hours after death (P.M. Book, vol. viii. p. 197). Body spare, thin. Rigor mortis. Joints nil. Cerebrum 42 ozs. Skull-cap thick. Pia thick, opaque; subarachnoid œdema. No flattening of convolutions. Pons large, flat, boggy. Arteries in advanced condition of calcareous atheroma. Patch of yellow softening size of a

hemp-seed in left claustrum, elsewhere cerebrum seems normal. Three-fourths of the pons is disorganised from hæmorrhagic extravasation, the parts not destroyed being the peripheral. The clot, which is quite soft, is quite confined to the pons. Cerebellum nil. Larynx nil. Pleuræ universally adherent; adhesions old, thin. Lungs large, emphysematous, much pigmented, and very œdematous. Both lower lobes are consolidated, much engorged, heavy, friable. Heart 19 ozs. Peri- and endocardia normal. Great hypertrophy of left ventricle. The aorta is but little atheromatous, while the median and smaller arteries are everywhere in extreme condition of calcareous degeneration. Liver 51 ozs., nil. Spleen 4 ozs., dark, hard, homogeneous. Kidneys 6 ozs., surface granular, capsule thick, adherent; cortex greatly atrophied, colour purplish, consistence firm. Pancreas 1½ oz. Gastro-intestinal mucosa normal.

Case 7.—E. H., female, aged 6$\frac{10}{12}$; was admitted under Dr. Allchin on April 28th, 1894. Had been ill for about a month before admission with pains in the head. Was attacked suddenly just before admission with convulsions. Was quite comatose when admitted. Temperature 100°, rising later to 102°. Died 6 hours after admission.

Post-mortem examination made 8 hours after death (P.M. Book, vol. viii. p. 262). Body well nourished; no marks. Brain 49 ozs. Skull-cap thin. Dura adherent. Pia normal. Brain pallid, flabby, no obvious flattening of convolutions. There is some fluid blood and a small quantity of soft black clot in the lateral ventricles, which are not distended. The region about the right insula and temporo-sphenoidal lobe feels rather boggy. On section a hæmorrhage is disclosed which has involved the lower part of the right lenticular nucleus, and the white substance of the temporo-sphenoidal lobe immediately below this. The clot extends as far backwards as the end of the posterior cornu, and there the wall of the ventricle is ruptured. The clot and destroyed cerebral substance is equal in size to a hen's egg. The wall of the hæmorrhagic cavity is ragged, and consists of disorganised nervous tissue; there is no induration. The rest of the brain and the spinal cord are quite normal. Ears nil; chronic tonsillitis. Thymus just 1 oz., firm, fleshy. Lungs show areas of recent diffuse extravasation, not hypostatic. No

pneumonia or insufflation. Heart, abdominal, and pelvic viscera normal.

CASE 8.—C. H. C., male, aged 17; was admitted on June 9th, 1894, dying ¾ hour afterwards. Is a veterinary surgeon's dispenser, living at Kennington. Was brought to the hospital by the police on the evening of June 9th, with the history of having been quite well up to ¼ hour before, when he was seized with numbness in one leg and arm. When seen he could not answer questions, but shouted frequently, and was very excited. Seemed to have pain in the head. Vomited shortly after, and then gradually became comatose. The right arm and leg were found to be paralysed. Left pupil was larger than right.

Post-mortem examination made 39 hours after death (P.M. Book, vol. viii. p. 288). Body well nourished. Rigor mortis. Bloody fluid issuing from nose. Bruise over right malar bone; no other marks. All the viscera show well-marked post-mortem decomposition. Brain 58 ozs. Dura adherent. Sinuses and veins of pia full of blood. Convolutions are very little flattened. Large hæmorrhage (clot weighs 1¼ oz.) into the white substance of left hemisphere. The clot, which is soft and black, lies in a spheroidal cavity in the parietal region between the basal ganglia and cortex. There is some bloody fluid in the left lateral ventricle. The rest of the brain and membranes are quite normal. Ears nil. No fracture. Sanious frothy fluid in trachea and bronchi. Lungs are large and heavy, full of blood, and of a dark purple hue throughout. Pleuræ free, smooth, shiny. Heart and pericardium nil. Arteries nil except for a few linear opaque yellow specks on interior of carotids. Gastro-intestinal tract and abdominal viscera normal.

CEREBRAL SOFTENING.

CASE 1.—R. L., male, aged 11; was admitted under Dr. Sturges on January 29th, 1893. Was an in-patient with enteric, æt. 5. When convalescing from this, developed chorea (the child in next bed was suffering from this at the time), and has had it twice since. Has been in Westminster Hospital twice during last 3 years with cardiac symptoms, œdema, and dyspnœa. On January 28th felt pain in left shoulder and arm; no loss of power then, but next

morning on getting up from bed fell on his left side. There was no loss of consciousness, but his speech was difficult to understand for some hours. Was admitted soon after. There was then obvious left hemiplegia; face, arm, and leg were all affected, but there was slight power in the leg. Left knee jerk increased. Ankle clonus on both sides. Apex beat is heaving and displaced outward; loud double mitral bruit. Lungs nil. Urine 1020, albumen $\frac{1}{8}$th, was passed in bed for a few days. Temperature 101°—102°. He gradually recovered some power in leg and shoulder, so that he was able to walk, but none over elbow and fingers. The facial palsy, though less, remained. The temperature continued to oscillate daily between 102° and normal. There were no obvious physical signs in lungs. The heart murmurs were always loud, but did not change. Often complained of pain in the limbs, and occasionally there was slight swelling in wrists and ankles, and latterly some œdema of the legs. On March 21st severe pain in right side came on. A few crepitations were heard in right axilla. He rapidly got worse and died that morning, becoming unconscious before death.

Post-mortem examination made 16 hours after death (P.M. Book, vol. vii. p. 381). Body emaciated; œdema of feet and scrotum; slight pigmentation of skin. Brain 52 ozs.; subarachnoid œdema. Yellow discoloration of left occipital and right temporo-sphenoidal lobes; the discoloration is quite superficial, being limited to the mere surface of the cortex; no apparent wasting. There is a similar discoloration of right insula. In all these places there were white specks on a few vessels. The outer third of the right corpus striatum is soft and shrunken, but not diffluent or yellow. The subependymal vessels above the corpus striatum feel quite hard. No thrombosis or embolus visible on naked-eye inspection. Lungs œdematous, "cardiac," no infarcts. Heart with pericardium, which is universally adherent, 20 ozs.; cavities dilated and filled with soft black clot. The mitral valve is much ulcerated and is the seat of large coarse vegetations, which have eaten away the greater part of the flaps and extend upwards into the auricle, the greater part of which is similarly affected. Left ventricle dilated and hypertrophied. Aortic cusps thickened, opaque, and somewhat recurved. There is an opaque cicatricial puckering of the tricuspid. Aorta nil.

Abdominal viscera "cardiac." Numerous old caseating infarcts in kidneys and spleen.

CASE 2.—S. G., male, aged 40; was admitted March 30th under Dr. Allchin. Is a horsekeeper, living in Westminster. No previous history known, except that he was a heavy drinker. On the day before admission he was suddenly taken ill with pain in the right side. On admission there was a pleuritic rub in the right axilla; was rather tremulous. Temperature 103·4°. During the night was very troublesome, and did not sleep at all. Next day there was dulness at the right apex with blowing breathing. During the day he rapidly became more prostrate, dying in the evening.

Post-mortem examination made 16 hours after death (P.M. Book, vol. vii. p. 393). Body well nourished; some post-mortem lividity of skin of head, neck, and back. Both great toe joints are enlarged, left most; some enlargement with prominence of bones of dorsum of feet, right most; urate of soda deposit in the foregoing joints, the bone of which about capsule is bossed and irregular. Cartilage of both big toe joints considerably eroded. Ankle, knee, and thumb joints nil. Lungs large and bulging; considerable amount of yellow lymph in the right pleural sac. About two-thirds of the right upper lobe are in condition of grey hepatisation, passing to purulent infiltration; the rest of this lobe is simply engorged, and the consolidated portion is abruptly delimited. The middle and lower lobes are engorged and œdematous. There are several masses of red passing to grey hepatisation with lobular disposition in the left lung, and the pleura over the lower lobe is slightly opaque with a very small quantity of soft recent lymph. The left lung generally is engorged and œdematous. Heart 13¾ ozs.; endocardium normal; firm decolorised clot in cavities; hypertrophy of left ventricle; the arteries are everywhere normal. Liver 92 ozs., of a pale reddish hue, firm but friable. Spleen 6 ozs., soft, flabby. Kidneys 14 ozs., pale red, flabby, smooth. Mucosa of stomach in condition of moderate chronic gastritis; small circular ulcer on anterior surface, close to great curvature; edges raised; ulcer shallow. Brain 48 ozs.; excess of subarachnoid fluid; fissures deep. Symmetrical patches of yellow cortical softening, circular, with diameter rather larger than

shilling, about the centre of lower and middle convolutions of both temporo-sphenoidal lobes. Another small patch at lowest and posterior part of third right frontal convolution. Membranes quite smooth; vessels nil.

CASE 3.—A. B., female, aged 43; was admitted on April 5th, 1894, under Mr. Macnamara. Was found by her friends on the floor of bedroom in January last. During the past few years her habits had been very intemperate. When admitted there were extensive bedsores over sacrum, buttocks, and elsewhere. Passed urine and fæces involuntarily in bed; urine drawn off, acid, no albumen. Was delirious on admission, with temperature of 102°—106°. Became rapidly worse, the temperature rising to 105°—106°. Died April 11th.

Post-mortem examination 17 hours after death (P.M. Book, vol. viii. p. 255). Body adipose. Large sacral bedsore extending downwards to below folds of buttock on either side from about middle of sacrum, which is exposed. Over the left trochanter is another, but less deep, sore. Both heels are black and gangrenous. The sacral sore has a diameter of about 8 inches. The femur is bare and exposed in the sore below trochanter. Upper extremities, especially forearms, much wasted; lower extremities are swollen from a firm œdema which pits with difficulty. All the viscera are sodden, blood-stained, and exhibit putrefactive phenomena to a marked degree. The liver, spleen, and kidneys are filled with gas bubbles. Skull-cap heavy, the bone is dense but not thick. Brain 45 ozs.; considerable subarachnoid œdema. The whole of the right corpus striatum is in condition of yellow softening; the softening has extended downwards towards the temporo-sphenoidal lobe. The thalamus is not implicated. The rest of the brain does not present anything noteworthy. Arteries of pia normal. Spinal cord firm throughout. Larynx nil. Chronic pleuritis. Lungs very œdematous; bronchitis. Heart 11 ozs., nil. Liver 61 ozs., bright yellow, very soft, spongy. Spleen 8 ozs., almost diffluent. Kidneys 13 ozs., almost pulpy. Gastro-intestinal tract nil. Uterus large from presence of several large spherical myomata, one of which is undergoing liquefactive degeneration in centre. Ovaries shrunken, indurated. Bladder distended with ammoniacal urine. Microscopical examination

of the spinal cord shows well-marked descending degeneration of one lateral column.

CASE 4.—E. M., female, aged 25; was admitted under Dr. Sturges on July 12th, 1894. Is married. Before marriage was a danseuse; has lived most of her life in London. When young had frequently to lie up with joint pains, but there was no further history of rheumatism. For the past 4 years had steadily lost flesh and suffered from dyspnœa and cough; during last 6 months the dyspnœa has become much worse, and accompanied by precordial pain, night sweats, and lately by hæmoptysis. On admission there was slight orthopnœa and cough. Heart's apex beat diffused; marked presystolic thrill. Area of cardiac dulness increased; loud harsh murmur at apex, chiefly presystolic in time. Crepitations at both bases. On July 15th patient vomited and became suddenly paralysed on the left side; coma supervened, and she died next day, July 16th.

Post-mortem examination made 6 hours after death (P.M. Book, vol. viii. p. 309). Body spare; no marks. Skull-cap thick, heavy. Brain 39 ozs. Convolutions flattened. No fluid in ventricles. Right middle cerebral artery and its sylvian branch are thrombosed; the clot is firm and partially decolorised. The clot begins from the end of the carotid, just before it emerges from the canal. The anterior half of right temporo-sphenoidal lobe, the operculum, and the insula are soft and boggy to the touch, though to the naked eye there is little between this and the left side, except that the uncinate convolution is quite red, and is also much softer than the adjacent cortex. Rest of brain not specially noteworthy. Arteries normal. Lungs engorged, œdematous; pleuræ nil. Heart 12 ozs. Tricuspid and mitral flaps much thickened and shortened; mitral flaps adherent. Orifice size of a goose-quill. Circumference of tricuspid 3½ inches. A few coarse firm old vegetations on tricuspid, mitral, and aortic valves; both auricles large and hypertrophied, especially the appendices. Pericardium nil. Liver 44 ozs., recent "cardiac." Spleen 6 ozs., "cardiac." Kidneys 7 ozs., full of blood, otherwise nil. Mucosa of stomach in condition of moderate chronic gastritis. Uterus large, retroverted. Mucosa of external os eroded; internal mucosa covered with sanious fluid. Recent corpus luteum in right ovary.

CEREBRAL TUMOUR.

W. H., male, aged 7; was originally admitted January 5th, 1891, under Dr. Allchin, having been an inmate of the hospital for about 2 years with the exception of some few weeks, when he was away at a convalescent home. Father healthy. Mother alcoholic and feeble-minded. Three sisters healthy; one sister died, æt. 6, of "Bronchitis with convulsions." Paternal grandfather and grandmother died of phthisis. Was born at full term and healthy as babe. No previous illness except measles, æt. 18 months. Three months before admission had an attack of bronchitis with fever and malaise, and one month ago his abdomen began to swell, and he lost flesh. Bowels constipated; no vomiting. On admission the child was thin, his complexion muddy, and suffered from dyspnœa. The superficial veins of neck, temples, and upper extremities are enlarged and tortuous. Abdomen uniformly distended, dull, and obviously containing fluid. Liver nearly to umbilicus. Spleen not enlarged. Heart sounds normal; precordial dulness normal. Dulness over left chest, with bronchial breathing and crepitations at both bases. Temperature normal. Urine 1028; albumen, a trace. On January 22nd the abdomen was tapped, as it had become more tense, and 52 ozs. of turbid fluid drawn off. On April 2nd an incision was made through the abdominal wall, and the peritoneal cavity drained. From this time onwards he did very well, and during the next 18 months was only tapped once. All this time he was running about, and seemed in fairly good health, though occasionally he was subject to a severe headache, lasting a day or two, and usually attended with vomiting. On January 7th, 1893, he had a right-sided convulsion, lasting for about half-an-hour, and for the next week complained of earache. On the 14th he was feverish, complained of pain in his abdomen, and kept vomiting. On the 15th he was tapped, and 10 ozs. of fluid were removed. Gradually got weaker, and died January 17th, 1893.

Post-mortem examination made 22 hours after death (P.M. Book, vol. vii. p. 336). Body emaciated; abdomen much distended, skin thereof greenish. Paracentesis scar. Right scrotum much swollen. Brain 42 ozs., subarachnoid œdema. In the left parietal region there is an irregular hard mass nearly

the size of a golf-ball. It appears from the surface as yellow nodules, immediately under the pia. Posteriorly it abuts against the occipital convolutions, and internally the posterior cornu of the lateral ventricle. Immediately in front the cerebral substance is wasted, leaving a space filled with fluid confined by the pia. The tumour is hard, yellow, and quite consistent. Suppuration of right middle ear and of the mastoid cells. Pleuræ universally adherent, and very firmly at bases. The lungs generally are subcrepitant though elastic, and the lower lobes are somewhat shrunken. The mediastinal tissue is much thickened, and the parts included from the root of the neck are matted together. There are no enlarged or caseous lymphatic glands. The thymus is large and persistent. The pericardium is extremely thick and universally adherent. Heart small; no endocarditis. On opening the abdominal cavity the sac is found to contain some half-pint of purulent fluid and a large quantity of yellow lymph. The small intestines form a mass which projects in front. Hereabouts there is no peritoneal thickening, the coils of intestine being quite free, and the serous surface, when the lymph has been removed, smooth and shiny, but in the upper part of the abdomen and at the base of the mesentery there is very considerable thickening. The stomach and transverse colon are firmly fixed together, and are further bound down by the subperitoneal fibrosis at the base of the mesentery, and indeed all the viscera at the upper part of abdomen are fixed up by the chronic peritonitis to one another and to the diaphragm, so that there was little possibility of movement. The stomach contains more than a pint of black grumous matter. The first part of duodenum is much dilated, looking like a second stomach. The gastro-intestinal mucosa is normal. There are no enlarged or caseous abdominal lymphatic glands. The subserous coats of the ascending and descending colons are also thickened, but not to the extent of that in the transverse portion. The omentum is wasted, and is represented by a narrow thin fringe of tissue. The pancreas, imbedded in the fibrous mass, seems normal. Spleen $3\frac{3}{4}$ ozs., firmly united all round; substance normal. Kidneys $5\frac{1}{2}$ ozs., normal. The right inguinal canal is patent almost as far as the testicle, and the sac is filled with lymph; there is some yellowish fluid in the tunica vaginalis. There is no caseous or cretaceous matter in pelvis,

abdomen, or thorax. The absence of tuberculosis in thorax, abdomen, and elsewhere, and the firmness and general aspect of the tumour, suggest that it is a syphiloma. Microscopical examination shows a fibro-caseating structure of inflammatory origin. In the earlier stages, seen in the margin, it consists of small spheroidal areas of indifferent cells, among which are occasional giant cells. In places the blood-vessels are numerous. The tumour is of the granuloma type, and has grown by peripheral accretion of the granulomata. In many particulars the individual granulomata are histologically indistinguishable from tubercles. Much trouble was taken to demonstrate the tubercle bacillus, but none were found.

MENINGITIS, NOT TUBERCULAR OR TRAUMATIC.

CASE 1.—H. H., female, aged 11; was admitted under Mr. Black on January 9th, 1893, for meningitis. Had scarlet fever 6 years ago; had discharge from left ear immediately after, and this has continued ever since. Polypi have been removed on several occasions, the last being a week ago, since which the purulent discharge has been much more profuse. Says she had inflammation of the throat 3 weeks ago, and, according to the mother, has complained for the last week of pains in the head and back, giddiness, loss of appetite, vomiting, and intolerance of light. Lies in bed with all the joints flexed. Head retracted. Answers questions quite naturally. Temperature 98°—102°. There is purulent discharge from left ear, and some tenderness over the mastoid. Optic neuritis, more marked in left eye. The retinal vessels are engorged. Constipation. Death took place suddenly the day after admission. There was no operation.

Post-mortem examination made 12 hours after death (P.M. Book, vol. vii. p. 325). Body well nourished; purulent discharge from left ear. Brain 44½ ozs. Pia generally is hyperæmic. Suppurative meningitis; most of the pus covering the upper and lower surfaces of the cerebellum, though there are a few small collections scattered about the cerebrum. The left inferior petrosal sinus is plugged with breaking down clot, and between the dura and bone near front of petrous bone in left

middle fossa is a flat collection of pus. Besides the cerebellar surfaces, the two posterior fossæ are covered with a thin layer of greenish lymph, which is more extensive on the left side. The brain generally is hyperæmic, but firm. The left middle ear is filled with curdy pus, in which lie the malleus and foot of the stapes but no incus. The mastoid cells and the internal ear are also in the condition of suppurative inflammation. The membrana tympani is absent. The pia of cord is hyperæmic, but there is no pus. Thoracic and abdominal viscera are quite normal.

Case 2.—M. C. H., female, aged 6; was admitted under Dr. Donkin, April 26th, 1893. A schoolgirl, living in Westminster; born at full term. Scarlet fever when 4 years old, and 6 months later "German measles." Has had a dry cough for the last 9 months; no other illness. Family history good; one sister had a similar attack 3 years ago, but recovered. Patient was quite well up to the day before admission. On morning of April 26th had a "fainting fit" lasting 3 minutes; on recovering went to school, and an hour later was brought back shivering and complaining of stabbing pain in the left side; increased on breathing. On admission the temperature was 100·4°, rising to 105·6° in a few hours. Next morning there was herpes on the lips. Child was very irritable, and its face flushed; vomited three times after admission. Respirations 56; breathing shallow; no dulness, or tubular breathing. Pulse 140. Heart nil. Pupils equal, acting to light and accommodation; no squint; no otorrhœa. The child rapidly grew worse; no definite physical signs of pneumonia could be found. Head retracted. Right pupil became larger than left. Temperature varied from 103° to 106°. Now became unconscious. Died on morning of April 29th.

Post-mortem examination made 9 hours after death (P.M. Book, vol. viii. p. 16). Body well nourished, no special marks. Brain 43 ozs. Calvarium dry, white. Convolutions somewhat flattened. Pia very greatly injected. Cortex everywhere quite pink. At a few spots on the base and sides the pia vessels are surrounded by yellow patches, while in a few others there are minute cortical extravasations. No excess of fluid either subarachnoid or intra-ventricular. Middle ears normal. Spinal cord nil. Lungs somewhat engorged and œdematous. Pleuræ

smooth and shiny except over right lower lobe, where the opposing surfaces are united by old but thin adhesions; no recent inflammation. The right upper lobe is consolidated; it is of a red purple colour, and of fleshy consistence. The hepatised portion shows no trace of lobulation; the consolidation is quite uniform and homogeneous. The middle lobe is for the most part in condition of acute emphysema; it is of a pale pink hue, and the general surface much above the rest of the pulmonary tissue, while the insufflated and the hepatised portions are separated by a band of collapsed pulmonary tissue, which is depressed, firm, blue, and consolidated. No enlarged or caseous lymphatic glands. The viscera generally are febrile, but in other respects normal. Microscopical examination of the hepatised lung showed that the pulmonary capillaries were tortuous and full of blood. Many alveoli contain large numbers of red corpuscles. The bronchi are stuffed with indifferent cells (leucocytes—pus), and so too are many alveoli. In some alveoli are ball-like skeins of fibrin. The pia mater is infiltrated with leucocytes, and the cortical vessels are much engorged. No micro-organisms were found in pia or cortex, either with Gram or alkalin methylen blue.

Case 3.—W. M., male, aged 44; was admitted under Dr. Sturges on June 17th, 1893. Is a cab-driver living in Chelsea. No previous serious illness. Has been a heavy drinker, especially during the last 9 months. Was quite well up to June 10th, when he was attacked with pain in his left foot, which soon began to swell. On June 12th was seized with diarrhœa and pain in the left side; and on the 16th dyspnœa. On admission was delirious; tongue dry and brown. Temperature 102·6°. Respirations 38. No dulness. Vocal fremitus and resonance well marked on both sides. Expiration prolonged. Rhonchi at lower part of right chest in front. Heart nil. Some swelling and tenderness of left foot; no grating of joint. Passing his fæces and urine under him; urine 1014, albumen a trace. During the 2 days he was in hospital was extremely delirious, and gradually became more and more prostrate. There were no definite signs of pneumonia. Pupils acted to light. His temperature gradually rose, reaching 106° on the early morning of June 20th, when he died.

Post-mortem examination made 36 hours after death (P.M. Book, vol. viii. p. 65). Body well nourished. Post-mortem decomposition well advanced; skin of abdomen green, of neck and back red purple. Abdomen distended. Left knee joint swollen; on incision it is found to contain about an ounce of greasy pus; pus in the cellular tissue about the left ankle joint and in the tendon sheaths of the flexor muscles of left leg. Other joints nil. Brain 46 ozs. Large collection of pus in the meshes of pia mater over inferior surface of cerebellum. Numerous diffuse collections of pus are scattered over cerebral surface. Nervous tissue nil. Ears nil. In both pleural sacs is a large quantity of greenish yellow purulent fluid, and much yellow lymph on the visceral and parietal surfaces of the pleuræ. Both lower lobes are collapsed. There is no pneumonia. Heart 11¾ ozs.; in diastole; blood in cavities frothy, and for the most part fluid, there being almost no clot. Large, soft, coarse vegetations on aortic cusps. Muscle pallid and flabby. Some calcareous atheroma at base of aorta, one patch being as large as a sixpence. Peritoneum and gastro-intestinal tract nil. Liver 59 ozs., very flabby and flaccid, of a pale red-brown hue. Spleen 3¾ ozs., dark, friable, homogeneous. Kidneys 12 ozs., soft, flabby, pallid. Bladder contracted.

Case 4.—E. B., female, aged 20; was admitted under Dr. Allchin on September 23rd, 1893. Was brought in from a common lodging-house in a delirious condition, not recognising anybody. She was stated to have refused her food for several days previously, and to have had "hysterical" fits, but no further history was obtainable. On admission there was general rigidity, more marked on the right side, and some paresis of the left side. Patient soon became comatose, and this condition gradually increased. The temperature was 103° on admission, rising to 105·4° at death, September 24th.

Post-mortem examination made 22 hours after death (P.M. Book, vol. viii. p. 113). Body well nourished. Rigor well marked. No marks of violence, &c. Brain 48 ozs. Bones of skull thin; scalp thin; bone of skull-cap dry and white. Convolutions flattened. Nervous tissue firm, buff-coloured. The left hemisphere is covered with a thickish layer of greenish-yellow lymph, most of which lies on the arachnoid surfaces of the dura

and pia, the rest being in the subarachnoid space, but is there confined to the parts subjacent to the arachnoid not following the pia into the sulci. The meningitis is almost entirely limited to the vertex and side of the hemisphere, though at the base there is considerable excess of subarachnoid fluid, which is turbid and slightly yellowish; the right hemisphere is quite free from suppurative meningitis. Ears, eyes, nose nil. Teeth perfect. Bones and joints nil. Slight chronic tonsillitis. Gastro-intestinal tract nil. No enlarged lymphatic glands. Liver 59 ozs., nil. Kidneys 10½ ozs., nil. Spleen 12¼ ozs., free, smooth, firm, dark, homogeneous. Uterus in position of left latero-version; mucosa covered with thin layer of sanious fluid. Left ovary nil; right ovary size of a hen's egg, represented by simple cyst. Mammæ nil. Lungs œdematous, somewhat engorged, otherwise nil. Left pleura free, smooth, shiny; numerous old thin adhesions of right. Heart (9¾ ozs.) and pericardium nil. Microscopical examination of pus from the arachnoid surface showed cocci with no special arrangement for the most part, but forming small chains occasionally. Sections of the pia and dura show that the arachnoid surfaces are covered with pus cells and inflammatory exudation, and that the appearances on the other side of the pia-arachnoid are quite similar. In the exudation are numerous collections of chain cocci, the arrangement of which resembles that of a ravelled skein. They are most frequent in the subarachnoid region. Many of the cocci are larger and better staining than others, thus giving the chains a moniliform aspect. There are the usual evidences of hyperæmia, and the walls of some of the arterioles show well-marked acute endarteritis, limited to the interior, which is much swollen from the presence of cells; the lining layer of endothelial cells is well preserved. Micro-organisms were not observed in sections of the spleen, though from cultivations of the pulp white liquefying colonies developed, the medium becoming diffusely stained of a greenish-yellow hue. The arrangement of these cocci was irregular. Both in sections and in cover glasses from the cultures, the cocci stained better with alkalin methylen blue than with Gram.

Case 5.—E. T. S., male, aged 26; was admitted under Dr. Donkin, November 1st, 1894. Lives in Bermondsey; was

suddenly taken ill on October 18th with headache and vomiting, and afterwards with diarrhœa, which continued up to admission. When admitted was very prostrate, with weak dicrotic pulse and some tremor; was delirious at night. Cough with viscid sanious sputum. General bronchitic sounds over both lungs. A few typhoid spots on abdomen. Tongue dry and brown. Temperature from 102°—104°. The prostration increased, the delirium low and muttering, and the tremors were accompanied by subsultus tendinum. On November 7th began to pass his motions in the bed; they were like pea-soup. On November 10th the temperature rose rapidly to 109·4°, when the patient died.

Post-mortem examination made 20 hours after death (P.M. Book, vol. viii. p. 144). Body fairly well nourished. Rigor mortis. No special surface marks. Brain 52 ozs.; soft. Pia much injected; is adherent, so that when stripped some of the cortex is torn off. Cortex pinkish, with well-marked puncta (head opened last). Larynx nil. Respiratory mucosa covered with a thick layer of sanious mucus; mucosa throughout is of a dark purple hue. Considerable hypostatic engorgement; no friability of the pulmonary tissue; no pneumonia. Pleuræ free, smooth, shiny. Heart 5½ ozs. Endocardium normal; muscle fairly firm. Peritoneum nil. Typical enteric ulcers in last 3 feet of ileum, mucosa of which is much injected; rest of gastro-intestinal mucosa swollen, soft, covered with a layer of granular mucus. Intestinal contents fluid, drab-coloured above, greenish below. Mesenteric glands are much enlarged, soft, and purple-coloured. Liver 54 ozs., febrile. Kidneys 10¼ ozs., febrile. Spleen 8¼ ozs., free, softish, dark.

Case 6.—C. W., male, aged 9; was admitted under Dr. Donkin on December 11th, 1893. Had been ill some days with sore throat. On admission was very prostrate. Discharge from nose and diphtheritic membrane on both tonsils. Temperature about 103°. Discharge from conjunctivæ, the lids being red and swollen last 2 days. The prostration increased, and the breathing became more rapid and distressed. No marked physical signs in chest the day before death. Albumen in urine. Pupils dilated, not acting to light on accommodation. Died December 13th.

Post-mortem examination made 16 hours after death (P.M.

Book, vol. viii. p. 167). Body well nourished. Rigor mortis. Surface pallid. Conjunctivæ swollen with some purulent discharge. Brain 42 ozs. Dura adherent to pia in several places on sides and vertex. The adhesions are soft and recent. At these places there are patches of exudation, chiefly hæmorrhagic in character, on the dural surface. All over the vertex the pia is injected, and specially so at the adhesion areas. Cortex pink. Subarachnoid œdema. In many places removal of the pia brings with it some of the cortex. Brain in other respects nil. Both middle ears are filled with yellow muco-purulent fluid. Orbits nil. The mucosa of the anterior nares is raw and ulcerated; that of the posterior nares is thickened, yellowish, and in the early condition of sphacelus. No true membrane. Both tonsils are enlarged and gangrenous. Respiratory mucosa from larynx to bronchi is covered with a thick layer of sanio-mucopurulent fluid. The greater part of both lungs, which are of a dark purple hue, is consolidated, only their anterior and upper portions remaining crepitant; the pneumonia is a hæmorrhagic broncho-pneumonia. The pleuræ are dull all over, but there is no lymph. Mediastinal and submaxillary glands are large, soft, and purple. Heart 4 ozs., nil. Abdominal viscera febrile. Gastro-intestinal mucosa nil.

Case 7.—R. R., male, aged 14; was admitted under Dr. Sturges on December 14th, 1893. Is a hairdresser living in Westminster. Had an attack of acute rheumatism in October, 1892, at which time a systolic bruit at the apex developed. Was readmitted in June, 1893, with general œdema. While in the hospital had a severe attack of pericarditis and left pleural effusion. The liver at this time was much enlarged. Stayed in hospital about 2 months, and when he left the pleural effusion had disappeared. The heart was much enlarged with systolic bruit at apex. During the next 3 months came into the hospital two or three times to be tapped for ascites. When admitted for the last time, December 14th, the abdomen was much distended with fluid, and there were signs of left pleural effusion. The dyspnœa was now much greater than on any previous occasion, and he had been spitting up blood for the past few days. At the left apex in front the note was tympanitic, and the breath sounds exaggerated; the heart was not displaced. On December 15th

the abdomen was tapped and 4 pints of clear fluid withdrawn. On the evening of December 16th he became very prostrate, passed his motions under him, became delirious and irritable, screaming loudly when touched, and finally comatose. The temperature, which had varied from 99° to 101°, rose rapidly to 108° just before death, December 17th.

Post-mortem examination made 20 hours after death (P.M. Book, vol. viii. p. 171). Body much emaciated; surface congested. Abdomen greatly distended. Brain 47 ozs. The subarachnoid space of cord and brain is distended with a yellowish green fluid. The meningitis is most marked on vertex and sides of the brain, and on posterior aspect of the cord. In a few places it is hæmorrhagic. Pia adherent to surface. In both lateral ventricles there is a little slightly turbid fluid. Middle ears nil. Suppurative bronchitis. Right pleura smooth, shiny. Lung large, congested, subcrepitant. In left pleural sac are several ounces of sanious fluid; the pleura is covered with a thin layer of recent lymph; some old adhesions at apex. Lower lobe carnified but not pneumonic; lower three-fourths of upper lobe are consolidated, fleshy, and of a livery colour; sinks in water. Pericardium adherent over right heart; elsewhere free; adhesions old. Heart 16 ozs. Mitral flaps somewhat thickened, chordæ shortened. Endocardium quite smooth. Left auricle large with thick wall. Aortic valve normal. Aorta normal. The abdominal cavity contains many pints of a greenish-yellow fluid and much lymph. Peritoneum much injected and covered with recent lymph. Liver, spleen, and kidneys soft and pallid. Liver 42 ozs. Spleen 5½ ozs. Kidneys 8 ozs. Gastro-intestinal tract nil.

CASE 8.—M. R., female, aged 4½; was admitted under Dr. Sturges on November 20th, 1893. Three brothers and sisters died in infancy; has always been a delicate child. One week before admission seemed to have pain in the head; was constantly tearing at her hair. Motions became offensive. The child, small for her age, weighed less than 13 lbs. at time of admission. Heart nil. Dulness with whiffy breathing, and some crepitations over left lung; some crepitations at right base. Child became gradually weaker, the physical signs remaining the same. On December 5th the left chest was explored, and pus obtained from

the pleural sac at a point about level with the upper part of left lower lobe. On December 13th about 1 oz. of pus was evacuated from a localised empyema at the spot of exploration. After the operation the child became weaker and gradually comatose, vomiting up to the day before death. The temperature varied from 98° to 103°, falling to normal on the day she died, December 20th.

Post-mortem examination made 24 hours after death (P.M. Book, vol. vii. p. 174). Body much emaciated. Surgical wound 1½ inch long at angle of left scapula, where a piece of the seventh rib has been resected. Anterior fontanelle not quite closed; sutures not quite united. Dura adherent. The whole of the cerebral surface, the inferior surface of cerebellum, and posterior aspect of spinal cord, is covered with inflammatory exudation, the subarachnoid tissue in these situations being infiltrated with greenish-yellow pus and lymph. There is most purulent deposit on vertex and at the sides. In the anterior fossæ there is a deposit of lymph on the arachnoid surface of dura. Brain substance soft, excess of fluid in ventricles, otherwise nil. Both middle ears are filled with mucus. Right pleural surfaces adherent. Adhesions old, thin. Right middle lobe fleshy and consolidated. Left pleural surfaces adherent by layers of yellow partially organised lymph, except where there are two empyema cavities, the uppermost of which communicates with the external wound. The lower one is subdiaphragmatic. Very little fluid in either. Left lung is subcrepitant but not pneumonic. Excess of fluid (sanious) in pericardial sac; the epicardium is of a purple hue, and covered with a thin deposit of lymph; pericardial surfaces adherent at left side. Peritoneum and abdominal viscera normal.

Case 9.—C. F., female, aged 2; was admitted under Dr. Donkin on August 24th, 1894. The child was quite well up to the morning of admission, when it vomited, and its mother finding that it felt very hot brought it to the hospital. On admission the temperature was 103·4°. Pulse 132°. Respirations 36°. Fauces nil. Heart and lungs nil. Over the front of chest and abdomen, and over back extending down into lumbar region, there is an indistinct purplish mottling. After admission there were several attacks (three or four) of general convulsions. Pupils

dilated, equal. Pulse regular. Abdomen tumid. Died in early morning of 25th soon after an attack of general convulsions. The temperature, which had fallen to 100·6°, rose to 106·2°, and after death to 106·6°.

Post-mortem examination made 6 hours after death (P.M. Book, vol. viii. p. 345). Body well nourished. Rigor mortis. Considerable lividity of surface; lips quite blue. Conjunctivæ injected. Skull-cap very thin; ossification complete. Ears normal. Brain 50 ozs. Convolutions flattened. Pia greatly injected. Cortex pink. Numerous small collections of greenish-yellow pus in the subarachnoid space; the distribution is general and irregular. Along the posterior surface of cord is also a collection of pus, subarachnoid, and mostly in the dorso-lumbar region. No tuberculosis. The nervous tissue of brain and cord is in other respects normal. Pleuræ and lungs normal. Heart 2 ozs., and pericardium normal. The eustachian aperture is patent though well valved. The ductus is thick and cord-like, but closed. Abdominal viscera febrile. Liver 16 ozs., soft, pallid. Spleen 2½ ozs., free, firm, pallid; malpighians show up extremely well. Kidneys 3 ozs., numerous minute petechiæ on surface, pallid, flabby. In the subarachnoid exudation a few quite small cocci, mostly diplos, without capsule, were found.

Case 10.—H. W., male, aged 9 months; was admitted under Dr. Donkin on November 6th, 1894. The child was quite well up to the evening of October 27th, when at 10 p.m. it was suddenly seized with vomiting and diarrhœa; the motions were yellow and offensive. On October 29th there was severe general tenderness so that the child screamed when touched; there was pain at the back of the head and retraction. It had frequent sweatings, and was very restless at nights. On November 3rd the mother noticed that the right elbow was swollen and shiny; it was not red nor did it pit on pressure. There was no cough and no dyspnœa.

The child had been fed from the breast only. The parents live in Chapel Street, Brixton, where during the past 12 months "the drains have been bad," but have recently been relaid. During the past year cases of diphtheria and scarlet fever have occurred in the house. The child's brother is well, and the parents quite healthy.

On admission the child was found to be well nourished. Temperature 103°. Heart and lungs normal. There was considerable general tenderness, the child screaming when touched. This was more marked about the right elbow than elsewhere, and the right arm seemed more helpless than the left. There was at this time no noticeable swelling of the joints. The anterior fontanelle was widely open, bulging, and tense. After admission the temperature became intermittent, varying from between 99° and 104°. There was occasional vomiting, and the bowels were freely open. No optic neuritis. On November 12th general rigidity set in; left pupil larger than right; the child is apathetic and drowsy; does not scream or object when examined. November 14th, the rigidity has increased, and there is well-marked opisthotonos; external strabismus. Pulse rapid, regular. Respirations regular. On November 16th extensive stomatitis; child more drowsy; swallowing much impaired. On November 17th general convulsions. Died 8.35 p.m. Temperature during last 3 days descended to 97°—100°. Urine acid, no albumen.

Post-mortem examination made 42 hours after death. Body emaciated. Post-mortem decomposition just commencing. Body flaccid. Testicles in canals. Bulgings, size of pigeon's egg, on inner side of both elbow-joints. Fluctuation in both swellings, with grating in joints on rotation. On opening these joints about ¾ oz. of thick, slightly sanious pus was evacuated from each. In both part of the coronoid and olecranon processes are necrosed. The left foot is swollen and baggy, both on the plantar and dorsal aspects, and the skin around the big-toe joints is thin and bluish. There is fluctuation and grating in this joint, and the ends of the metatarsal and phalangeal bones are bare and rough. There is about ½ oz. of sanious pus in the joint, and a diffuse abscess of the sole and dorsum of the foot. Other joints nil. Anterior fontanelle large, but no evidence of rickets. Cranial bones dry and white. Brain 32 ozs. Convolutions flattened. Fluctuation marked. Almost the whole of the cerebral and cerebellar surfaces are covered with yellow purulent lymph, which is thickest about the middle line of base and vertex. The purulent lymph, which is subarachnoid in distribution, spreads also all the way down the spinal cord, on the posterior aspect of which there is quite a large collection.

There is much turbid and purulent fluid in the lateral ventricles, and on the wall of the right descending cornu there is a large area of septic hæmorrhagic inflammation. Both middle ears are filled with greenish-yellow pus. Tonsils nil. Whole of the lower lobe of left lung is purple and consolidated (recent broncho-pneumonia). Rest of lungs and pleuræ normal. In front of thymus there is a diffuse collection of pus. Heart 1½ ozs., and pericardium normal. Abdominal viscera febrile, otherwise nil. Microscopical examination of the pus (subarachnoid and from joints) showed, when stained with alkalin methylen blue, large numbers of very small cocci, rather ovalish, often in pairs; free in the plasma; arrangement, diffuse and scattered; no clumps or chains; many are surrounded by a halo, but a definite capsule is uncertain. The cocci are quite decolourized by Gram's method. From the ordinary cocci of suppuration the microbe of this case is distinguished by its arrangement, size, and colour reaction. From the *diplococcus pneumoniæ*, Fraenkel, by its shape and colour reaction. From *diplococcus intracellalaris*, Weichselbaum, in that this latter usually occurs in pairs (though it is seen in clumps and solitary); and is almost invariably within the cells. From the microbe of suppurative meningitis described by Neumann and Schiffe in that this latter is really a bacillus 2 μ. long. Neither of the last two organisms stains with Gram.

For another case, inadvertently omitted, see P. M. report for 1894.

CEREBRAL ABSCESS.

Case 1.—D. H., female, aged 16; was admitted March 22nd, 1893, under Dr. Sturges. Of no occupation. Has always lived in London. No history of any previous serious illness. Father died of phthisis in Westminster Hospital; rest of family healthy. Was quite well up to 3 weeks before admission, when she began to complain of headache and general pains. She vomited occasionally, and had an attack of epistaxis and some "twitchings." The headache gradually got worse. Bowels constipated. On admission she was drowsy, and complaining of severe frontal headache. Tongue dry and brown. Sordes on teeth. No otorrhœa or deafness; no palsy of eyes or limbs; no anæsthesia. Chest nil. Abdomen not distended; a few scattered rose-coloured

spots; tache cerebrale. Optic discs hyperæmic; no neuritis; left pupil dilated. Temperature 100°—101°. Pulse 100, regular. For some four or five days she improved, was less drowsy, and the headache less severe. She vomited about once a day; she then began to pass her urine and fæces under her. On April 5th her temperature rose to 103°, and she became rather more drowsy. She began to waste rapidly. Ptosis and external strabismus of the right eye developed. Gradually she became so drowsy that it was impossible to rouse her. There was no definite paralysis of any limb, but the ocular palsy became more marked. Her pulse now became irregular, and ranged from 80—90. On April 6th she began calling out loudly, and was then transferred to the extra wards. Gradually sank and died two days afterwards. No definite physical signs in the lungs throughout.

Post-mortem examination made 42 hours after death (P.M. Book, vol. vii. p. 399). Body much emaciated; no marks. Brain 51 ozs.; skull-cap dry, white; epicranium strips easily; convolutions much flattened. In the right frontal and temporo-sphenoidal lobes are five abscesses—three in the former, and two in the latter. They are spheroidal, and quite delimited by a firm, tough, but not thick capsule, so that they could be easily shelled out. They contain a green viscid pus. The abscesses in temporo-sphenoidal lobe are about the size of small hen's eggs; of those in frontal lobe one is as large as a walnut, the other two of Spanish nuts. In the posterior cornu of left ventricle is a small collection of pus of similar character. In the subarachnoid space of base of brain and of spinal cord are a few small collections of greenish pus. As a whole the brain is pallid and soft. No disease of the cranial bones. Ears nil. Larynx and fauces nil. One or two carious teeth. Lungs congested, otherwise nil. Pleuræ smooth, shiny, and free, except at diaphragmatic surface of left lung, where the opposing surfaces are united. Heart and pericardium normal. Above and below spleen are two small encysted peritoneal abscesses filled with greenish viscid pus, elsewhere the peritoneum is normal. The abdominal and pelvic viscera are quite normal. Gastro-intestinal tract nil. No enlarged lymphatic glands anywhere. Hymen crescentiform. Microscopical examination of the pus in abscess (Gram) shows streptococci; the chains are short and the cocci small. The

wall of the largest abscess is formed of fibro-granulation tissue. It is about $\frac{1}{16}$ inch thick; not a few large vessels (veins) run through the wall; in the outer layer the cells are parallel to the circumference, in the inner they are arranged radially. The abscesses therefore must have been of slow growth.

CASE 2.—E. F., female, aged 26; was admitted under Dr. Allchin March 4th, 1894. Is a fancy boxmaker living in Westminster. Was in good health up to December, 1893, when she had an attack of "influenza"; ever since this has suffered on and off from severe headache. On March 20th the headache became violent, and was accompanied by vomiting. On admission complained of severe headache, and seemed very drowsy. Bowels constipated. Temperature 103°—104°, falling gradually to normal during the next few days. The headache was constant and severe, and mainly frontal. On April 10th slight internal strabismus in the right side was noticed, and this became more marked next day, when double optic neuritis was very evident. Knee jerks exaggerated with slight ankle clonus. On April 14th there were some slight general convulsions. On April 21st left external strabismus was remarked, and there was diplopia. Is frequently delirious. Bowels still constipated. On the night of April 27th was wildly delirious, and died rather suddenly on the morning of April 28th. During the preceding day right facial palsy was noticed. Urine normal throughout. The temperature never rose from the normal after the first febrile attack. There was no vomiting while in the hospital.

Post-mortem examination made 43 hours after death (P.M. Book, vol. viii. p. 263). Body well nourished; no marks. Brain 45 ozs. Dura normal except part posterior to sella turcica, where it is thickened, and the adjacent bone bare and exposed; the subjacent sphenoidal sinus, the mucosa of which is of a slaty-blue colour, is filled with pus. Ears nil. Pia nil. Convolutions flattened; surface of brain buff-coloured. There is bulging of the left frontal lobe at its inferior and internal aspects; the bulging is due to a tumour lying immediately above the olfactory sulcus; this on incision is found to be a thick-walled spheroidal abscess, about $1\frac{3}{4}$ inch in diameter. Its wall is tough, glistening, and shiny on section; its internal aspect fairly smooth; its contents a bright green pus. Owing to its size and position

the abscess-tumour has implicated the olfactory, optic, and third nerves; rest of the brain nil. Spinal cord nil. Fauces, larynx, and pleuræ nil. Lungs much engorged throughout. Heart (8 ozs.) and pericardium nil. Stomach large; pyloric mucosa pigmented brown; rest of alimentary tract nil. Kidneys 12 ozs. Spleen 5 ozs. Liver 56 ozs., and adrenals nil. Uterus and ovaries nil. Thyroid large, nil. Microscopical examination of the pus from abscess shows streptococci (Gram); of the wall of the abscess, that it was divisible into two layers, the outer of which is composed of fibrous tissue, the inner of granulation tissue. Both are fairly well supplied with blood-vessels, which in the inner layer go off at right angles to those in the outer, and seem to form loops.

Case 3.—F. W., male, aged 17; was admitted under Dr. Hebb on August 18th, 1894. Is a compositor, living in Vauxhall. On July 17th fell off a bicycle, and 14 days later was attacked with "cellulitis" over the right side of forehead, which rapidly got well. No sign or history of a wound in this region; occasional attacks of headache in the right frontal region after the fall. Previously to the fall had always been perfectly healthy, except for an occasional purulent discharge from the right ear, which had existed since the age of three. Was deaf of the right ear. Seven days previous to admission he was attacked with pain in the back of his head and vomited. On the evening of August 17th he complained of seeing double, and later on became "unconscious" quite suddenly. The headache continued up to this time. On admission he was very restless and noisy, especially at night, but was quite conscious of the presence of other people, and answered when spoken to, sometimes aptly, asked for the bed-pan, &c. Complained much of headache, screaming frequently with the pain. Head much retracted; arms and legs flexed. Lies indifferently on either side. Pupils rather dilated, equal, reacting to light. Conjunctivæ clear. Examination of optic disks failed. Breathing regular. Pulse rapid, regular. Temperature 104·2°. He remained in much the same condition up to August 20th, when the pupils were noticed to be unequal; the left eye [illegible] prominent than the right, and its conjunctiva [illegible] August the 21st some slight paresis of

morning of the 23rd there was complete left hemiplegia. Breathing rather irregular. Pulse 78. Temperature 103°. At this time he was sufficiently conscious to ask for the bed-pan. Urine 1018, acid, no albumen. The bowels were open infrequently, and the motions occasionally passed in the bed. In the afternoon of the 23rd he rapidly became comatose and died.

Post-mortem examination 19 hours after death (P.M. Book, vol. viii. p. 343). Body emaciated; rigor; no marks; slight muco-purulent discharge from nose. Brain 59 ozs.; skull-cap thin; on reflecting the dura the right inter-meningeal space is found to be covered with a thick layer of greenish yellow pus, owing to the presence of which the surface of this hemisphere is depressed, especially in the frontal region. On removal of brain the layer of pus is found to extend all over the right half of the brain, from back to front, reaching backwards as far as the medulla. The left side of cerebrum and cerebellum is quite free from pus, but the pia very hyperæmic and injected. In the right frontal lobe is a spheroidal abscess not bigger than a Spanish nut; its wall is thickish but not fibrous; this has burst into the inter-meningeal space. It lies immediately above the orbital plate of the right frontal bone, in the centre of which is a roughly circular patch of necrosed bone just ½ inch in diameter. On removing this it is found that there is a considerable collection of pus between the peritoneum of orbit and the bone, and also in the right frontal sinus. Ethmoidal and sphenoidal sinuses nil. The right membrana tympani is perforated, and in the right tympanum and mastoid cells is a collection of thin curdy yellowish pus. The middle ear is quite destroyed. There is no clotting in any of the sinuses or veins, and no recent connection between the ear disease, the abscess, and the meningitis. Left ear nil. There is almost no subarachnoid suppuration. Rest of brain and spinal cord nil. Abdominal and thoracic viscera nil. Microscopical examination of the pus from the abscess (Gram and alkalin methylen blue) showed streptococcus forming unusually long chains.

TABES DORSALIS.

T. R., male, aged 44; was admitted under Dr. Allchin, [illegible]ber 1st, 1888. For the last 5 years an inmate of West-

minster Hospital on the incurable list. His father died, æt. 48, from cough with hæmoptysis. Mother died, æt. 61, from "cough and shortness of breath." One brother died of phthisis. Was a waiter for some years, but during the 12 years previous to admission has kept a coffee-stall. Drank freely of beer and spirits at one time. No previous serious illness of note, though he was in Brompton Hospital for 3 months in 1885 for some chest affection.

Was admitted to Westminster Hospital with chronic phthisis, and also with marked symptoms of locomotor ataxia, which had only come on a few weeks before admission. His gait was then extremely ataxic. Had lightning pains down the legs, and severe gastric crises from time to time. On these occasions there were severe griping pains in abdomen and violent vomiting, which could only be controlled with morphia. He suffered from incontinence of urine, but there was no rectal trouble. At first his ataxy diminished and there was some general improvement, but for the last year or two has been quite unable to walk without much support. In November, 1889, his sight began to fail, and for the last few years has been quite blind. In April, 1890, he had a severe laryngeal crisis. Latterly has been obliged to be injected with morphia twice daily. Some few days before his death, January 11th, 1893, severe bronchitis supervened on the chronic phthisis.

Post-mortem examination made 18 hours after death (P.M. Book, vol. vii. p. 327). Body somewhat emaciated; no special marks. Brain 46 ozs. Dura thick and adherent. Subarachnoid œdema. Pia seems fairly normal. Optic nerves grey, flat, wasted; sheath and periosteum much thickened at entrance into fissure, where there is quite a thick ring all round. Nervous tissue of brain seems normal. Spinal cord: in the cervical and dorsal regions the postero-median columns are grey; cord firm; no other naked-eye morbid appearances. Larynx nil. Thyroid nil. Costal cartilages ossified. Both pleuræ thickened and universally adherent, especially at apices; that at the right being quite $\frac{1}{3}$ inch thick. Lungs emphysematous, much puckered and indurated from presence of fibrous deposit in upper lobes and about roots, whence it proceeds along the bronchi. Bronchi are thickened and dilated. Numerous small cavities, and one the size of a walnut at right apex. Numerous

masses of encapsuled cretaceous matter, and also of pigmented fibroid tubercles. Both upper lobes are much indurated and contracted; the right being quite devoid of aerating tissue. Heart 14 ozs., nil. Arteries nil. Liver 46 ozs.; capsule adherent to diaphragm, strips easily; hepatic substance soft and pallid. Spleen 4½ ozs., nil. Kidneys 13½ ozs., nil. Pancreas, adrenals, and sympathetic ganglia nil. Muscles of lower extremities firm and of a good colour; joints nil. Some œdema about ankles.

Microscopical examination of spinal cord showed that the pia was much thickened, especially in the dorsal region and on the posterior aspect thereof. There is well-marked sclerosis of the posterior columns in the dorsal and also in the cervical regions; in the lumbar it is less advanced. The posterior cornua are thin, and the posterior rootlets much fibrosed. The blood-vessels in the sclerosed portions are large, thick-walled, and numerous.

CHRONIC SPINAL MENINGITIS: SYRINGOMYELIA.

W. S., male, aged 49; was admitted under Dr. Donkin, March 23rd, 1893. A commercial traveller, living at Belvedere, Kent. Has been a total abstainer for the last 27 years, and for many years was accustomed to walk about 25 miles a day. Married; 4 children; all healthy; none lost; no neurosis in family. Twenty-eight years ago had a sore, followed by a rash and sore throat, and his doctor said it was syphilis. Twenty-four years ago had an attack, in which his right hand became weak and he could not write. His left leg was also weak, and it dragged when he walked. The speech also was somewhat affected. From this attack he quite recovered after a few days. In 1880, thirteen years ago, had typhoid fever; 8 years later (1888) suffered from loss of power in both hands, which lasted for some months; this gradually improved, though some weakness remained. About 12 to 18 months ago began attending the National Hospital for 5 months for staggering gait and weakness of his legs, which came on gradually. His memory failed, and he was given easier work to do by his employers. Towards the end of September, 1892, he found he could not always hold his water, and sometimes completely lost control;

for this, together with weakness of legs, sleeplessness, and facial erysipelas, was admitted into Guy's Hospital on December 13th, 1892. Until 4 days prior to his admission there, could always walk with a stick, but now became too weak to do so. The condition as then noted was: well-marked facial erysipelas. Temperature 102°. Loss of power in both legs; is able to lift himself in bed, but unable to walk without assistance or a stick. Legs well formed, and the muscles firm. Ankle clonus readily obtained on both sides. Knee jerks increased. No disturbance of sensory impressions (not tested for heat or cold). Unable to control urine or fæces. Bladder empty, no retention overflow. Heart and lungs nil. Urine 1015, copious; albumen. Up to January 26th passed through a severe attack of erysipelas with numerous abscesses on head, face, and neck, which were opened. When the abscesses were incised the man never flinched, and said he felt no pain whatever, nor when dressed with hot boracic fomentations did he ever complain of their being too hot or of giving him pain. On December 31st the incontinence of urine and fæces is noted to be much improved, and by January 6th to be arrested; the sensation over legs good; optic disks pale, especially left; vessels normal; reflexes same. Has been taking pot. iodid. gr. xv thrice daily. February 6th, able to walk about ward without stick, though slowly and with unsteady gait. Knee jerks and ankle clonus have decreased; eyes the same. Remained in Guy's Hospital 8 weeks and went out much improved in his walking, though (according to the statement made at Westminster Hospital) he still passed his urine and motions in bed. Was delirious at nights on several occasions, and had hallucinations of sight. A few days later had to take to bed again, where he has remained ever since. His legs were rigid, drawn up, and often started up suddenly. On admission his face was rather expressionless, and his speech not quite clear. He lay low in bed, with his legs flexed. There was marked rigidity of the knee and ankle joints. Knee jerks exaggerated, and ankle clonus more on right side. His legs frequently jerked up involuntarily. His arms and hands were weak, but there was no rigidity. Elbow and wrist jerks brisk. Sensation not tested. His memory was fair, but his wife said it had been better. Heart and lungs nil. Five days after admission his temperature

rose, and he rapidly became extremely prostrate and feeble. Respiration somewhat quickened. Pneumonia was suspected, but owing to his extreme weakness he could not be properly examined. He rapidly got worse, and died March 29th, having been unconscious for the last 36 hours.

Post-mortem examination, 6 hours after death (P.M. Book, vol. vii. p. 390). Body fairly well nourished. Legs semi-flexed, rigid. No cutaneous or osseous lesions. Brain 45 ozs.; on removal much clear watery fluid escaped from the lateral ventricles. Dura slightly adherent, not specially thickened. Cerebral pia and vessels seem normal. Nervous tissue flabby, but not specially noteworthy as regards structure, except that the lateral ventricles are large and dilated. The dura of cord, from foramen magnum downwards, is greatly thickened, especially as far the cervical enlargement. It is adherent to the bone and to the cord, and was removed only with great difficulty. The intermeningeal space is almost obliterated. The medulla and cord are much wasted, being quite flat and riband-like. The nervous tissue is greatly atrophied from distension of the central canal, which is dilated throughout, though chiefly in the cervical region. A large thick probe passes easily, even at the lower end of the cord. The condition of syringomyelia stops at the upper part of the cord. Both the pons and medulla are also somewhat atrophied. There is atheroma with aneurysmal dilatation of the basilar artery. On the posterior aspect of lower half of cord are numerous thick large calcareous plates. The sciatic nerves are flabby and wasted. Larynx nil. The right lower lobe and nearly the whole of the left lung are pneumonic, being in condition of red hepatisation. The superficial pleura is covered with a moderately thick layer of recent yellow granular lymph. Pericardium much thickened and universally adherent (old). Endocardium nil, except for one coarse vegetation on mitral. Liver, spleen, and kidneys not noteworthy. The sigmoid flexure is unusually long and looped. It first passes down into pelvis and then upwards into abdomen, where it reaches as high as umbilicus before passing downwards to rectum. Bladder, urethra, and testicles nil.

NOTE.—I had intended to make a few remarks on all the foregoing cases, but found this would lead me too far afield; so I must content myself with pointing

out that in some sets, *e.g.*, cerebral hæmorrhage, meningitis, abscess, cases are included which might with equal or even greater propriety be placed in a different category, *e.g.*, enteric fever with meningitis, and others. But I think this allocation makes the presence of a definite lesion, having different causes or different associations, all the more interesting.—R.G.H.

MEDICAL REGISTRAR'S REPORT FOR THE YEAR 1893.

By Dr. GOSSAGE.

Number of patients in Hospital, Jan. 1st, 1893			83
" " " Dec. 31st, 1893			78
Admitted to Medical Wards during year 1893			1,387
Of these—Males		775	
Females		612	
Average number of patients in Hospital			83·6
Average stay in Hospital of each patient			22 days
Recovered or relieved			1,166
Males		634	
Females		532	
Unrelieved, including those sent to Surgical or Obstetrical Wards			45
Males		25	
Females		20	
Died			176
Males		116	
Females		60	

Table A.

DISEASE.	Jan. to March.	April to June.	July to Sept.	Oct. to Dec.	Sex. Males.	Females.	Total.	Age. Under 5 yrs.	5—10.	10—20.	20—30.	30—40.	40—50.	50—60.	Over 60.	Result. Death. M	F	Unrelieved. M	F	Relieved. M	F
GENERAL DISEASES:																					
Group A:																					
Scarlatina	2	4	...	...	1	5	6	2	1	...	3	...	...	...	...	...	...	1	5	...	...
Morbilli	3	...	1	...	1	3	4	1	...	1	2	...	...	...	...	...	...	...	...	1	3
Enteric fever	4	3	10	9	12	14	26	1	7	10	7	1	...	...	...	1	2	...	...	11	12
Diphtheria	13	1	4	10	15	13	28	12	9	2	5	...	...	...	...	6	2	...	...	9	11
Febricula	1	3	4	8	10	6	16	6	3	6	1	...	...	...	...	...	...	...	...	10	6
Influenza	8	11	3	7	13	16	29	...	3	7	10	6	2	...	1	...	...	...	...	13	16
Varicella	1	...	...	...	1	...	1	1	...	...	...	...	...	...	...	...	...	...	...	1	...
Variola	3	...	...	...	3	...	3	...	...	1	1	1	...	...	...	...	...	2	...	1	...
Erysipelas	1	3	1	10	8	7	15	2	...	3	3	3	...	4	...	1	...	...	...	7	7
Pertussis	5	2	6	2	9	6	15	9	6	...	...	...	...	...	...	1	...	2	...	6	6
Intermittent fever	2	...	...	1	3	...	3	...	...	...	1	1	...	...	1	...	...	...	...	3	...
Syphilis:																					
1. Congenital	...	1	...	...	1	...	1	1	...	...	...	...	...	...	...	1	...	...	...	...	...
2. Acquired	4	2	1	...	4	3	7	...	...	...	4	1	1	1	...	1	...	...	...	3	3
Pyæmia	...	2	...	1	3	...	3	...	...	1	...	...	1	1	...	3	...	...	...	...	...
Parotitis	...	1	...	...	1	...	1	...	1	...	...	...	...	...	...	...	...	...	...	1	...
Gonorrhœal arthritis	...	2	...	...	2	...	2	...	...	...	2	...	...	...	...	...	...	...	...	2	...
Group B:																					
Poisons:																					
Opium	...	...	1	...	1	...	1	...	...	...	...	...	1	...	...	1	...	...	...	...	...
Mercury	...	1	...	...	...	1	1	...	...	...	...	...	1	...	...	...	...	...	...	...	1
Bromide of potassium	...	...	1	...	...	1	1	...	...	1	...	...	...	...	...	...	...	...	...	...	1
Lead	1	4	1	3	9	...	9	...	...	...	4	4	1	...	...	...	...	...	...	9	...
Iodine	...	1	...	...	1	...	1	...	...	...	...	...	...	...	1	...	...	...	...	1	...
Alcohol	3	2	2	1	6	2	8	...	...	...	4	1	1	1	1	...	...	...	...	6	2
Ptomaine	...	...	...	1	1	...	1	...	...	...	1	...	...	...	...	1	...	...	...	...	...
Pork	1	...	...	...	1	...	1	...	...	...	...	...	1	...	...	1	...	...	...	...	...
Fish	...	3	...	...	3	...	3	...	...	1	1	1	...	...	...	...	...	...	...	3	...
Hairwash	...	1	...	...	...	1	1	...	...	1	...	...	...	...	...	...	...	...	...	...	1
Group C:																					
Developmental Diseases:																					
Debility	1	2	...	...	1	2	3	...	...	...	...	...	1	...	2	...	...	...	...	1	2
Marasmus	4	...	1	2	4	3	7	7	...	...	...	...	...	...	...	2	2	...	...	2	1
Transposition of viscera	1	1	...	...	...	2	2	1	...	...	...	...	1	...	...	...	...	...	1	...	1
Group D:																					
Not classified:																					
Acute Rheumatism	35	12	13	27	51	36	87	3	11	25	30	10	5	3	...	1	1	...	...	50	35
Subacute ,,	5	2	14	7	14	14	28	...	...	10	7	4	5	2	...	...	...	...	...	14	14
Chronic ,,	1	...	2	...	1	2	3	...	...	1	...	1	1	...	...	...	...	...	...	1	2
Gout	1	4	1	1	6	1	7	...	...	...	...	4	2	...	1	...	...	...	...	6	1
Osteo-arthritis	2	2	...	...	...	4	4	...	1	...	...	2	1	...	...	...	...	...	...	...	4

TABLE A—*continued.*

DISEASE.	Jan. to March.	April to June.	July to Sept.	Oct. to Dec.	Sex. Males.	Females.	Total.	Age. Under 5 yrs.	5—10.	10—20.	20—30.	30—40.	40—50.	50—60.	Over 60.	Result. Death. M	F	Unrelieved. M	F	Relieved. M	F
GENERAL DISEASES: Group D.—*continued.* *Not classified:*—cont.																					
Tuberculosis	10	5	4	6	12	13	25	7	9	5	2	...	1	1	...	8	6	2	...	2	7
Rickets	2	1	4	1	5	3	8	8	...	...	...	...	...	...	...	...	...	...	...	5	3
Myxœdema	...	1	...	1	...	2	2	...	...	...	...	...	1	...	1	...	...	...	...	...	2
Malignant disease of pelvis	...	...	1	...	1	...	1	...	...	...	...	1	...	...	...	...	...	...	...	1	...
Anæmia	12	5	5	9	1	30	31	1	...	7	21	1	...	1	...	...	...	...	...	1	30
Splenic anæmia	1	1	2	...	1	3	4	2	1	...	...	...	1	...	...	...	...	...	...	1	3
Pernicious anæmia	...	...	1	...	1	...	1	...	...	...	...	1	...	...	...	...	...	1	...	...	...
Leucocythæmia	1	...	...	...	...	1	1	...	...	...	1	...	...	...	...	...	1	...	...	...	...
Scurvy	1	...	...	...	1	...	1	...	...	...	...	...	...	...	1	...	...	...	...	1	...
Diabetes	1	...	4	3	7	1	8	...	...	4	1	...	2	1	...	1	...	...	...	6	1
DISEASES OF NERVOUS SYSTEM:																					
Brain:																					
Hæmorrhage	1	1	...	3	4	1	5	...	...	...	...	1	1	2	1	4	1	...	...	...	...
Hemiplegia	8	4	...	1	11	2	13	1	...	...	...	3	5	1	3	...	...	1	...	10	2
Tumour	2	1	...	2	4	1	5	...	...	2	2	1	...	...	...	...	...	...	...	4	1
Abscess	1	...	...	...	...	1	1	...	...	1	...	...	...	...	...	...	1	...	...	...	...
Hydrocephalus	2	...	...	...	2	...	2	2	...	...	...	...	...	...	...	...	...	...	...	2	...
Meningitis	...	...	1	...	...	1	1	...	...	...	1	...	...	...	...	...	1	...	...	...	...
Cerebo-spinal sclerosis	1	...	...	1	1	1	2	...	...	1	...	...	...	1	...	...	...	...	...	1	1
Cord:																					
Anterior poliomyelitis	...	..	1	...	1	...	1	1	...	...	...	...	...	...	...	...	...	...	...	1	...
Spastic paralysis	...	...	2	3	4	1	5	...	...	1	...	1	...	2	1	...	...	1	...	3	1
Progressive muscular atrophy	1	1	...	...	2	...	2	...	...	...	...	...	2	...	...	...	...	...	...	2	...
Diver's paralysis	...	...	...	1	1	...	1	...	...	...	...	1	...	...	...	...	...	...	...	1	...
Syringo-myelia	1	...	...	...	1	...	1	...	...	...	...	...	1	...	...	1	...	...	...	...	...
Acute myelitis	1	1	1	1	4	...	4	...	...	1	...	1	1	1	...	...	...	...	...	4	...
Tabes dorsalis	3	...	1	...	4	...	4	...	1	...	...	...	3	...	...	1	...	...	...	3	...
Various:																					
Sciatica	1	1	1	1	4	...	4	...	...	...	1	1	2	...	...	...	...	...	...	4	...
Peripheral neuritis	...	3	1	1	4	1	5	1	...	...	...	2	2	...	...	...	...	...	...	4	1
Diphtheritic paralysis	...	1	...	1	1	1	2	1	...	...	1	...	...	...	...	...	...	...	...	1	1
Epilepsy	3	2	1	...	3	3	6	...	...	1	2	2	1	...	...	...	...	...	...	3	3
Infantile convulsions	...	2	2	1	3	2	5	4	1	...	...	...	...	...	...	1	...	...	...	2	2
Chorea	10	5	4	8	3	24	27	...	5	21	...	1	...	...	...	...	...	...	...	3	24
Hysteria	5	3	5	1	2	12	14	...	...	4	7	1	2	...	...	...	...	...	1	2	11
Megraine	...	1	...	...	...	1	1	...	...	...	...	1	...	...	...	...	...	...	...	...	1

TABLE A—*continued.*

DISEASE.	Jan. to March.	April to June.	July to Sept.	Oct. to Dec.	Sex. Males.	Females.	Total.	Age. Under 5 yrs.	5—10.	10—20.	20—30.	30—40.	40—50.	50—60.	Over 60.	Result. Death. M	F	Unrelieved. M	F	Relieved. M	F
DISEASES OF THE NERVOUS SYSTEM—*cont.*																					
Various :—continued.																					
Paralysis agitans	...	...	...	1	1	...	1	...	...	...	...	...	...	1	...	...	...	...	...	1	...
Facial paralysis	...	1	1	...	2	...	2	...	...	...	...	...	2	...	...	...	...	...	...	2	...
Facial neuralgia	...	...	1	1	2	...	2	...	...	1	...	1	...	...	...	...	...	...	...	2	...
Torticollis	...	...	2	...	1	1	2	...	...	1	1	...	...	...	...	...	...	...	...	1	1
Tetany	1	...	...	...	1	...	1	1	...	...	...	...	...	...	...	...	...	...	...	1	...
Concussion	1	1	...	..	2	...	2	...	...	...	...	...	...	2	...	...	...	...	...	2	...
Laryngismus stridulus	...	1	...	...	...	1	1	1	...	...	...	...	...	...	...	...	...	...	...	...	1
Mental :																					
Dementia	...	2	...	...	...	2	2	...	...	...	...	...	1	1	...	...	...	...	1	...	1
General paralysis of the insane	2	...	...	...	2	...	2	...	...	...	...	1	1	...	...	...	...	...	...	2	...
Melancholia	...	3	...	2	1	4	5	...	...	2	2	...	...	...	1	...	...	1	3	...	1
Delusional insanity	1	...	...	...	1	...	1	...	...	...	...	1	...	...	...	...	...	1	...	...	...
Hypochondriasis	...	2	2	2	5	1	6	...	...	1	...	2	2	1	...	...	...	1	1	4	...
Delirium tremens	...	1	1	1	2	1	3	...	...	...	...	1	1	1	...	1	...	1	...	...	1
DISEASES OF THE CIRCULATORY SYSTEM :																					
Dilatation of the heart.	...	1	2	2	4	1	5	...	...	...	...	1	3	...	1	2	...	...	...	2	1
Endocarditis (not arising in Hospital)																					
Mitral :																					
1. With presystolic murmur	...	1	...	1	...	2	2	...	...	2	...	...	...	...	...	...	1	...	...	...	1
2. With systolic murmur	6	7	1	8	8	14	22	...	5	8	...	2	...	6	1	1	...	...	...	7	14
3. With double murmur	12	5	6	6	12	17	29	...	4	9	7	5	3	1	...	4	2	...	...	8	15
Aortic :																					
1. With systolic murmur	...	...	1	...	...	1	1	...	...	...	1	...	...	...	...	...	...	...	...	...	1
2. With diastolic murmur	2	...	...	...	1	1	2	...	...	...	...	1	...	...	1	...	...	...	...	1	1
3. With double murmur	12	5	6	6	21	8	29	...	...	9	6	10	2	1	1	3	1	2	...	16	7
Ulcerative endocarditis	2	1	2	...	3	2	5	...	...	1	2	1	1	...	...	3	1	...	...	...	1
Pericarditis	...	...	2	1	1	2	3	...	...	1	1	...	...	...	1	1	...	...	...	...	2
Congenital heart disease	2	...	...	3	1	4	5	3	...	1	...	...	...	1	...	...	4	...	...	1	...
Angina pectoris	...	2	...	1	3	...	3	...	...	...	1	1	...	1	...	...	...	...	...	3	...

TABLE A—*continued.*

DISEASE.	Jan. to March.	April to June.	July to Sept.	Oct. to Dec.	Sex. Males.	Females.	Total.	Age. Under 5 yrs.	5—10.	10—20.	20—30.	30—40.	40—50.	50—60.	Over 60.	Result. Death. M	Death. F	Unrelieved. M	Unrelieved. F	Relieved. M	Relieved. F
DISEASES OF THE CIRCULATORY SYSTEM—*continued.*																					
Aneurism:																					
1. Thoracic	2	3	...	2	6	1	7	...	...	...	2	1	1	3	...	4	...	...	...	2	1
2. Abdominal	1	1	...	1	3	...	3	...	...	...	2	1	...	...	...	...	...	...	...	3	...
Phlegmasia dolens	1	...	...	...	...	1	1	...	...	1	...	...	...	...	...	...	...	...	...	...	1
Raynaud's disease	...	1	...	1	...	2	2	...	...	...	2	...	...	...	...	...	...	...	...	...	2
Lymphatic system:																					
Adenitis	2	...	...	...	...	2	2	...	1	1	...	...	...	...	...	...	...	...	...	...	2
Elephantiasis of leg	...	...	...	1	...	1	1	...	...	...	1	...	...	...	...	...	...	...	...	...	1
DISEASES OF THE RESPIRATORY SYSTEM:																					
Laryngitis:																					
1. Acute	3	2	...	1	4	2	6	2	1	2	...	...	1	...	...	...	...	...	...	4	2
2. Chronic	1	...	...	...	...	1	1	...	...	1	...	...	...	...	...	...	...	...	...	...	1
Bronchitis:																					
1. Acute	10	5	4	...	13	6	19	10	6	2	1	...	...	...	...	1	...	...	...	12	6
2. Chronic	7	3	1	...	6	5	11	1	...	1	...	3	2	3	1	...	...	...	...	6	5
Pneumonia:																					
1. Lobar	27	32	24	19	72	30	02	15	12	23	19	12	14	4	4	18	4	...	1	54	25
2. Lobular	10	13	7	7	17	20	37	33	4	...	...	...	...	...	...	5	6	...	1	12	13
Foreign body in bronchus	2	...	...	...	2	...	2	...	1	1	...	...	...	...	...	1	...	...	...	1	...
Bronchiectasis	...	...	...	1	1	...	1	...	...	...	1	...	...	...	...	...	...	...	...	1	...
Phthisis	21	11	15	8	36	19	55	...	...	8	14	17	12	4	...	10	6	2	1	24	12
Malignant disease of lung	1	...	1	1	1	2	3	...	...	...	1	1	...	1	...	...	1	...	...	1	1
Emphysema	9	4	4	7	20	4	24	...	...	...	...	3	5	8	8	...	...	...	...	20	4
Pleurisy:																					
1. With effusion	7	4	3	7	13	8	21	1	3	4	3	2	6	2	...	1	...	...	...	12	8
2. Without effusion	7	7	3	7	17	7	24	...	...	4	4	7	5	3	1	...	...	...	...	17	7
Empyema	2	1	7	3	6	7	13	6	3	2	2	...	...	...	...	1	1	...	...	5	6
Malignant disease of pleura	1	...	...	...	...	1	1	...	...	...	...	...	1	...	...	...	1	...	...	...	...
Asthma	1	3	...	1	5	...	5	...	...	1	...	3	1	...	...	...	...	1	...	4	...
Hæmoptysis	...	1	...	2	3	...	3	...	...	...	1	...	...	1	1	...	...	...	...	3	...
Pleurodynia	...	...	...	1	1	...	1	...	...	1	...	...	...	...	...	...	...	...	...	1	...

TABLE A—*continued.*

DISEASE.	Jan. to March.	April to June.	July to Sept.	Oct. to Dec.	Sex. Males.	Females.	Total.	Age. Under 5 yrs.	5—10.	10—20.	20—30.	30—40.	40—50	50—60.	Over 60.	Result. Death. M	F	Unrelieved. M	F	Relieved. M	F
DISEASES OF THE DIGESTIVE SYSTEM:																					
Mouth:																					
Stomatitis	5	...	2	3	5	5	10	2	7	1	...	...	...	...	...	...	...	...	...	5	5
Pharynx & Œsophagus:																					
Tonsillitis	15	17	24	19	36	39	75	5	7	19	35	5	2	...	...	...	1	...	...	36	38
Pharyngitis	...	...	1	...	1	...	1	...	...	...	1	...	...	...	...	...	...	...	...	1	...
Malignant disease of œsophagus	1	...	1	...	2	...	2	...	...	...	...	...	...	1	1	...	...	1	...	1	...
Stomach:																					
Dyspepsia	1	2	3	2	4	4	8	...	...	...	3	2	2	1	...	...	...	...	...	4	4
Acute gastritis	...	...	1	...	...	1	1	...	...	1	...	...	...	...	...	...	...	...	...	...	1
Ulcer	10	5	1	1	3	14	17	...	...	1	6	5	3	1	...	...	...	...	...	3	14
Carcinoma	2	...	1	5	4	4	8	...	...	...	...	1	4	2	1	3	1	...	...	1	3
Dilated stomach	...	2	...	1	3	...	3	...	...	...	1	...	...	1	1	...	...	1	...	2	...
Vomiting	4	5	1	2	6	6	12	2	...	6	3	1	...	...	...	...	...	...	...	6	6
Hæmatemesis	2	...	1	3	4	2	6	...	...	1	2	1	...	1	1	...	...	...	...	4	2
Intestines:																					
Diarrhœa	2	10	28	5	17	28	45	18	...	8	6	9	2	2	...	3	3	...	...	14	25
Constipation	2	7	3	...	2	10	12	1	...	5	4	...	1	1	...	...	...	...	...	2	10
Colic	4	1	3	1	8	1	9	...	1	4	1	1	1	1	...	...	...	...	...	8	1
Typhlitis	2	1	4	2	7	2	9	...	4	1	3	1	...	...	...	...	...	...	...	7	2
Enteritis	...	...	1	2	2	1	3	...	...	...	1	2	...	...	...	...	...	...	...	2	1
Duodenal ulcer	...	1	...	...	1	...	1	...	...	...	...	...	...	1	...	1	...	...	...	...	...
Perforation of vermiform appendix	...	2	...	1	3	...	3	...	1	2	...	...	...	...	...	3	...	...	...	...	...
Malignant disease	2	1	1	1	4	1	5	...	...	...	3	1	1	...	...	3	1	...	...	1	...
Liver:																					
Acute hepatitis	2	...	1	...	3	...	3	...	...	...	...	1	1	...	1	1	...	1	...	1	...
Cirrhosis:																					
1. Atrophic	6	1	7	4	14	4	18	...	...	...	...	7	5	4	2	3	...	...	...	11	4
2. Hypertrophic	...	...	4	...	3	1	4	...	...	...	...	1	1	2	...	...	...	1	1	2	...
Malignant disease	1	...	...	1	1	1	2	...	...	...	...	...	2	...	...	...	...	...	...	1	1
Syphilitic disease	...	1	...	...	1	...	1	...	...	...	...	...	...	...	1	1	...	...	...	...	...
Jaundice	1	...	1	...	1	1	2	...	...	1	1	...	...	...	...	...	...	...	...	1	1
Gall stones	1	...	3	...	1	3	4	...	...	...	...	3	...	1	...	1	...	...	...	...	3
Peritoneum:																					
Acute Peritonitis	...	...	2	1	2	1	3	...	...	1	...	...	2	...	...	2	1	...	...	...	...
Chronic „	1	3	...	...	3	1	4	...	2	1	1	...	...	...	...	1	...	...	...	2	1
Malignant disease	2	1	1	...	...	4	4	...	...	...	...	...	3	1	...	...	2	...	1	...	1
Ascites	...	2	5	1	7	1	8	...	...	...	4	2	1	...	1	...	...	...	...	7	1

TABLE A—*continued.*

DISEASE.	Jan. to March.	April to June.	July to Sept.	Oct. to Dec.	Sex. Males.	Females.	Total.	Age. Under 5 yrs.	5—10.	10—20.	20—30.	30—40.	40—50.	50—60.	Over 60.	Result. Death. M	F	Unrelieved. M	F	Relieved. M	F
DISEASES OF THYROID BODY:																					
Bronchocele	...	1	...	...	...	1	1	...	...	...	...	...	1	...	...	...	...	...	...	...	1
DISEASES OF SUPRA-RENAL CAPSULES:																					
Addison's disease	1	...	1	...	1	1	2	...	...	...	1	...	...	1	...	...	...	...	1	1	...
DISEASES OF THE URINARY SYSTEM:																					
Acute nephritis	4	2	5	3	8	6	14	2	1	4	3	4	...	...	...	...	...	...	1	8	5
Chronic Nephritis:																					
1. Large white kidney	8	6	2	1	9	8	17	...	1	2	1	7	4	2	...	1	2	...	...	8	6
2. Contracted kidney	4	2	9	9	13	11	24	...	...	...	1	5	9	4	3	1	3	...	...	12	8
Movable kidney	1	...	...	1	...	2	2	...	...	...	1	1	...	...	...	...	...	...	...	...	2
Renal calculus	2	...	1	...	2	1	3	...	...	...	...	...	1	2	...	1	...	...	...	1	1
Pyonephrosis	1	1	...	...	2	...	2	...	...	2	...	...	...	...	...	...	...	...	...	2	...
Cystitis	...	...	...	1	1	...	1	...	...	...	1	...	...	...	...	...	...	...	...	1	...
DISEASES OF SKIN:																					
Eczema	1	...	1	...	1	1	2	...	1	...	...	1	...	...	...	...	...	...	...	1	1
Psoriasis	1	...	...	...	1	...	1	...	...	...	...	...	1	...	...	...	...	...	...	1	...
Herpes	3	...	2	...	4	1	5	...	1	2	2	...	...	...	...	...	...	...	...	4	1
Lupus	2	1	1	...	2	2	4	...	1	1	2	...	...	...	...	...	...	...	...	2	2
Erythema	2	2	2	...	3	3	6	1	1	...	2	1	1	...	...	...	...	...	...	3	3
DISEASES OF WOMEN:																					
Ovarian tumour	2	...	...	...	...	2	2	...	...	...	...	...	1	...	1	...	...	...	...	...	2
Fibroid of uterus	...	1	...	...	...	1	1	...	...	...	...	...	1	...	...	...	...	...	...	...	1
VARIOUS:																					
Starvation	3	...	...	...	2	1	3	...	...	1	...	1	...	1	...	...	...	...	...	2	1
Abscesses, various	1	1	3	1	2	4	6	...	...	1	2	3	...	...	...	...	...	1	1	1	3
Caries of spine	...	...	...	1	1	...	1	...	...	...	1	...	...	...	...	...	...	1	...	...	...
Deafness	1	...	...	...	...	1	1	...	...	...	1	...	...	...	...	...	...	...	...	...	1
Dentition	4	1	1	...	5	1	6	5	1	...	...	...	...	...	...	...	...	...	...	5	1
Climateric	1	...	...	...	...	1	1	...	...	...	...	...	1	...	...	...	...	...	...	...	1
Adenoids	...	2	...	...	...	2	2	...	2	...	...	...	...	...	...	...	...	...	...	...	2
Malingering	...	1	...	...	1	...	1	...	...	1	...	...	...	...	...	...	...	...	...	1	...
Nil	2	3	2	1	4	4	8	...	...	2	1	2	1	1	1	...	...	...	...	4	4

Table E.—*List of Deaths in the Medical Wards.*

	Males.		Females.
General Diseases:			
Enteric fever	1	...	2
Diphtheria	6	...	2
Pyæmia	3	...	0
Pertussis	1	...	0
Syphilis	2	...	0
Tuberculosis	8	...	6
Erysipelas	1	...	0
Opium poisoning	1	...	0
Pork poisoning	1	...	0
Ptomaine poisoning	1	...	0
Marasmus	2	...	2
Acute rheumatism	1	...	1
Leucocythæmia	0	...	1
Diabetes	1	...	0
Diseases of Nervous System:			
Cerebral Hæmorrhage	4	...	1
„ abscess	0	...	1
Infantile convulsions	1	...	0
Meningitis	0	...	1
Locomotor ataxia	1	...	0
Syringomyelia	1	...	0
Delirium tremens	1	...	0
Diseases of Circulatory System:			
Ulcerative endocarditis	3	...	1
Mitral disease	5	...	3
Aortic „	3	...	1
Dilated heart	2	...	0
Pericarditis	1	...	0
Congenital heart	0	...	4
Thoracic aneurysm	4	...	0
Diseases of the Respiratory System:			
Acute bronchitis	1	...	0
Lobar pneumonia	18	...	4
Lobular „	5	...	6
Phthisis	10	...	6
Malignant disease of lung	0	...	1
Foreign body in bronchus	1	...	0
Empyema	1	...	1
Malignant disease of pleura	0	...	1
Pleurisy with effusion	1	...	0

Diseases of the Digestive System:	Males.		Females.
Tonsillitis	0	...	1
Malignant disease of stomach	3	...	1
Duodenal ulcer	1	...	0
Perforation of the vermiform appendix	3	...	0
Diarrhœa	3	...	3
Malignant disease of intestine	3	...	1
Acute hepatitis	1	...	0
Cirrhosis of liver	3	...	0
Syphilitic disease of the liver	1	...	0
Biliary calculus	1	...	0
Acute peritonitis	2	...	1
Chronic „	1	...	0
Malignant disease of peritoneum	0	...	2
Diseases of the Urinary System:			
Chronic nephritis:			
1. Large white kidney	1	...	2
2. Contracting granular kidney	1	...	3
Renal calculus	1	...	0
Total	116	...	60

Table F.—*Lobar Pneumonia.*

One hundred and two cases of lobar pneumonia were treated in the hospital during the year 1893, which added to the numbers during 1891 and 1892, makes a total of 240 cases.

The number of admissions was nearly double the average yearly number. It was during the first six months of the year that by far the greater number of cases occurred. Sixty-five cases occurred during these months against an average for the last eight years of 44.

The number of cases directly following influenza was two.

Ages.

	Under 5.	5—10.	10—20.	20—30.	30—40.	40—50.	50—60.	Over 60.
1891...	4	3	20	31	13	8	3	1
1892...	14	4	11	9	9	5	3	0
1893...	14	17	15	20	15	14	4	5
Total..	32	24	46	60	37	27	10	6

Sex.

	Males.	Females.
1891 ...	67	16
1892 ...	42	13
1893 ...	73	29
Total	182	58

Numbers admitted in each Month.

	1891	1892	1893	Total.
January.	22	5	14	41
February	8	5	6	19
March...	10	9	9	28
April ...	14	4	11	29
May.....	10	5	17	32
June ...	6	4	8	18
July.....	2	5	12	19
August...	0	6	4	10
September	3	3	5	11
October..	1	2	5	8
November	4	4	6	14
December	3	3	5	11

Seasons.

Cases admitted, in each group of three months.

	1891	1892	1893	Total.
January to March	40	19	29	88
April to June	30	13	36	79
July to September.....	5	14	21	40
October to December...	8	9	16	33

Cases admitted, in two groups: six warmer and six colder months.

	1891	1892	1893	Total.
April to September ...	35	27	57	119
October to March	48	28	45	121

There were 23 deaths among the 102 cases—18 males, 5 females—giving a percentage of 22·5 for the year 1893, and an average percentage for three years of 21·66.

Ages at death.

	Under 5.	5—10.	10—20.	20—30.	30—40.	40—50.	50—60.	Over 60.
1891 ...	1	0	0	7	5	3	0	1
1892 ...	2	0	1	1	5	2	1	0
1893 ...	1	1	0	2	3	9	2	5
Total...	4	1	1	10	13	14	3	6

Percentage on total number of cases occurring at each age.

Under 5.	5—10.	10—20.	20—30.	30—40.	40—50.	50—60.	Over 60.
12·50	4·16	2·17	16·60	35·00	51·80	30·00	100.

Three cases and two deaths are recorded under the age of 12 months, giving a percentage of 66·66. The percentage of deaths between the ages of one and five years is 6·9, but one of the two deaths occurring between these ages was complicated by diphtheria.

Death occurred on

	1891	1892	1893	Total.
2nd day ...	1	0	0	1 case
3rd „ ...	0	0	1	1 „
4th „ ...	3	0	1	4 cases
5th „ ...	1	0	3	4 „
6th „ ...	1	0	3	4 „
7th „ ...	1	1	3	5 „
8th „ ...	1	0	3	4 „
9th „ ...	2	2	4	8 „
10th „ ...	1	1	0	2 „
11th „ ...	0	3	0	3 „
12th „ ...	0	1	2	3 „

	1891	1892	1893	Total.
13th day ...	0	1	1	2 cases
14th „ ...	1	0	1	2 „
15th „ ...	0	1	0	1 case
17th „ ...	1	1	0	2 cases
18th „ ...	0	1	0	1 case
19th „ ...	0	0	1	1 „
20th „ ...	1	0	0	1 „
21st „ ...	1	0	0	1 „
23rd „ ...	1	0	0	1 „
47th „ ...	1	0	0	1 „

As to cause, the cases may be classified as follows:—

	1891	1892	1893	Total.
Exposure to wet and cold.....	19	9	15	43
Infection or poisoning	9	8	9	26
Various (including traumatism)	5	0	3	8
No cause discovered	50	36	75	161

Excluding 50 deaths (16, 1891; 11, 1892; 23, 1893) in which the patients' temperature was still febrile when death took place, and counting the cases when more than one crisis occurred by the number of these crises—

	1891	1892	1893	Total.
Crisis took place in...	52	35	73	160
Lysis „ „ ...	23	10	9	42

Crisis occurred on

	1891	1892	1893	Total.		1891	1892	1893	Total.
1st day	1	0	0	1 case	8th day	9	5	9	23 cases
2nd „	2	0	2	4 cases	9th „	3	3	11	17 „
3rd „	3	1	1	5 „	10th „	1	3	4	8 „
4th „	8	1	9	18 „	11th „	1	2	3	6 „
5th „	3	4	9	16 „	12th „	0	1	2	3 „
6th „	12	6	8	26 „	15th „	0	0	1	1 „
7th „	9	8	14	33 „	17th „	0	1	0	1 „

The duration of the fever in the cases which terminated by lysis was as follows:—

Days.	1891	1892	1893	Total.	Days.	1891	1892	1893	Total.
6	1	1	0	2	12	2	0	0	2
7	7	1	1	9	13	2	1	0	3
8	4	3	2	9	14	1	1	1	3
9	1	0	2	3	15	0	0	1	1
10	0	2	1	3	21	1	0	0	1
11	3	1	1	5	22	1	0	0	1

The equality and inequality of the pupils during the attack of pneumonia has been observed in 182 cases (60, 1891; 43, 1892; 79, 1893):—

In 89, where only one lung was affected, the pupils were equal throughout.
„ 11, where both lungs were affected, they were also equal.
„ 59, the larger pupil was on the same side as the affected lung.
„ 17, on the opposite side.

The duration of the inequality was from one day onwards, but wherever possible they were observed to see if they became equal after the attack was over.

In 76 cases (1891, 33; 1892, 18; 1893, 25) herpes occurred; and the correspondence of the side of the lips on which the

herpes occurred and the side on which the larger pupil was observed has been noted as follows:—

(In 18 cases the side was not noted, and in 5 of the herpes cases the pupils were not noted—thus reducing the 76 to 53.)

Side of herpes corresponded to larger pupil	in	18 cases
„ „ did not correspond to larger pupil	„	7 „
Herpes was double, and the pupils equal	„	7 „
„ unilateral, but pupils equal	„	20 „

In 53 cases (1891, 23; 1892, 12; 1893, 18) the correspondence of the herpes with the lung affected was noted:—

The side of the herpes corresponded with the affected lung	in	36 cases
„ „ „ did not correspond with the affected lung	„	13 „
Herpes was double, and pneumonia double	„	4 „

Out of 27 cases (1891, 18; 1892, 5; 1893, 4) the side of the herpes and the side of pneumonia and the larger pupil—

Corresponded	in	15 cases
Did not correspond	„	10 „
Pneumonia double, herpes double, and pupils equal	„	2 „

SURGICAL REGISTRAR'S REPORT FOR THE YEAR 1893.

By W. WYNDHAM POWELL.

The total number of cases under treatment in the Surgical Wards during the past year was 1268, viz.:—

	Males.	Females.	Total.
Remaining in hospital December 31st, 1892 ...	57	35	92
Admitted during the year 1893	—	—	1176
			1268
Of these there were:			
Discharged, cured or relieved	702	425	1127
„ unrelieved	8	4	12
Transferred to the Medical Wards	2	3	5
Died	34	20	54
In hospital December 31st, 1893	39	31	70
			1268

The mortality during the year was 4·5 per cent.

TABLE I.—*Showing the total number of Cases of each Disease or Injury which were Discharged or Died during the year* 1893.

DISEASES.	Total.	Relieved.		Not Relieved.		Died.		In hosp. 31st Dec., 1893.	
		M.	F.	M.	F.	M.	F.	M.	F.
Purpura	2	...	1	...	...	...	...	...	1
Alcoholism	1	1	...	...	...	...	...	...	...
Gonorrhœal rheumatism	4	4	...	...	...	...	...	...	...
Subacute rheumatism	1	1	...	...	...	...	...	...	...
Acute rheumatism	1	1	...	...	...	...	...	...	...
Congenital syphilis	2	...	1	...	...	...	1	...	...
Mumps	1	...	1	...	...	...	...	...	...
Scurvy rickets	1	1	...	...	...	...	...	...	...
MALFORMATIONS, and acquired Deformities:									
Talipes varus	2	1	1	...	...	...	...	...	...
„ equino-varus	4	4	...	...	...	...	...	...	...
„ equinus	1	...	1	...	...	...	...	...	...
Pes planus	7	4	1	...	...	...	...	1	1
Genu valgum	5	3	1	...	...	...	...	...	1
„ varum	1	...	1	...	...	...	...	...	...
Hammer-toe	2	...	...	1	...	...	...	1	...
Hare-lip	1	1	...	...	...	...	...	...	...
Deformed nose after lupus	1	...	...	...	1	...	...	...	...
Absence of rectum	1	...	...	...	1	...	...	...	...
Curved fibulæ, rickets	1	1	...	...	...	...	...	...	...
Inverted foot, hysteria	1	...	1	...	...	...	...	...	...
Old dislocated hip after typhoid fever	1	...	1	...	...	...	...	...	...
Contracted toe after burn	1	1	...	...	..	...	...	...	...
Ankylosis of hip in faulty position	3	1	2	...	...	...	...	...	...
Congenital dislocation of both hips	1	...	...	1	...	...	...	...	...
Supernumerary toes	1	...	1	...	...	...	...	...	...
Vicious union after fractured femur	1	...	...	...	...	...	...	1	...
Congenital malformation of both legs—constriction by umbilical cord	1	...	1	...	...	...	...	...	...
DISEASES OF THE NERVOUS SYSTEM:									
Epilepsy	1	1	...	...	...	...	...	...	...
Cephalalgia	2	2	...	...	...	...	...	...	...
Meningitis, otitis media	1	...	...	...	...	...	1	...	...
Cerebral congestion	1	...	...	...	...	1	...	...	...
Sciatica	2	1	1	...	...	...	...	...	...
Paralysis of vocal cord ? Growth in chest	1	1	...	...	...	...	...	...	...
Neuralgia	2	...	2	...	...	...	...	...	...
Hysterical hip	2	1	1	...	...	...	...	...	...
Infantile paralysis	2	2	...	...	...	...	...	...	...

TABLE I.—*continued.*

DISEASES.	Total.	Relieved.		Not Relieved.		Died.		In hosp. 31st Dec., 1893.	
		M.	F.	M.	F.	M.	F.	M.	F.
DISEASES OF THE EAR:									
Otitis media purulenta	5	4	1	...	...	...	...	...	...
" " and mastoid abscess	3	...	3	...	...	...	...	...	...
Nerve deafness	1	...	1	...	...	...	...	...	...
Otitis media and thrombosis of lateral sinus	1	...	...	...	...	1	...	...	...
DISEASES OF THE EYE AND ITS APPENDAGES:									
Opaque lens capsule	1	1	...	...	...	...	...	...	...
Lamellar cataract	3	3	...	...	...	...	...	...	...
Cataract	5	2	2	...	...	...	1	...	...
Strabismus	2	...	2	...	...	...	...	...	...
Iritis, specific	2	1	1	...	...	...	...	...	...
Kerato-iritis, specific	1	...	1	...	...	...	...	...	...
Glaucoma	3	...	3	...	...	...	...	...	...
Leucoma	2	...	2	...	...	...	...	...	...
Ptosis	1	...	1	...	...	...	...	...	...
Marginal blepharitis	1	...	1	...	...	...	...	...	...
Angioma of eyelid	1	...	1	...	...	...	...	...	...
Fibroma of orbit	2	...	2	...	...	...	...	...	...
Trachoma	1	1	...	...	...	...	...	...	...
Proptosis and conjunctivitis	1	1	...	...	...	...	...	...	...
Conjunctivitis	1	...	...	...	...	...	1	...	...
Obstruction of nasal duct	1	...	1	...	...	...	...	...	...
DISEASES OF THE NOSE:									
Epistaxis	3	3	...	...	...	...	...	...	...
Ozœna	1	...	1	...	...	...	...	...	...
Deflected septum	3	...	2	...	...	...	...	...	1
DISEASES OF THE CIRCULATORY SYSTEM:									
Varicose veins	25	17	7	...	...	...	...	1	...
Phlebitis and thrombosis	11	2	7	...	...	...	...	1	1
Phlegmasia alba dolens	2	...	1	...	...	...	...	...	1
Hæmorrhage after opening bubo	1	1	...	...	...	...	...	...	...
Popliteal aneurism	2	2	...	...	...	...	...	...	...
Aneurismal varix of hand	1	...	1	...	...	...	...	...	...
Morbus cordis	1	...	1	...	...	...	...	...	...
DISEASES OF THE LYMPHATIC SYSTEM:									
Lymphangitis	5	2	3	...	...	...	...	...	...
Lymphadenitis	9	3	6	...	...	...	...	...	...

TABLE I.—*continued.*

DISEASES.	Total.	Relieved.		Not Relieved.		Died.		In hosp. 31st Dec., 1893.	
		M.	F.	M.	F.	M.	F.	M.	F.
DISEASES OF THE LYMPHATIC SYSTEM—*continued.*									
Abscess in or about glands:									
Cervical	19	19	...	...	...	...	...	...	...
Femoral	9	5	4	...	...	...	...	...	...
Axillary	19	9	10	...	...	...	...	...	...
Inguinal (bubo)	14	12	2	...	...	...	...	...	...
Tubercular glands:									
Cervical	20	12	8	...	...	...	...	...	...
Inguinal	1	1	...	..	...	...	...	...	...
Secondary epithelioma of cervical glands	2	2	...	...	...	...	...	...	...
Lymphoma	2	1	1	...	...	...	...	...	...
DISEASES OF THE THYROID GLAND:									
Cystic bronchocele	1	...	...	...	...	...	1	...	...
Pulsating „	1	...	1	...	...	...	...	...	...
DISEASES OF THE RESPIRATORY SYSTEM:									
Empyema	3	2	...	...	...	1	...	...	...
Supposed empyema	1	1	...	...	...	...	...	...	...
Bronchitis	2	1	...	...	...	...	...	1	...
Epithelioma of larynx	1	1	...	...	...	...	...	...	...
Tubercular laryngitis	1	...	...	...	...	...	...	1	...
DISEASES OF THE DIGESTIVE SYSTEM:									
Lips:									
Epithelioma	4	4	...	...	...	...	...	...	...
Hypertrophy	1	...	1	...	...	...	...	...	...
Gums and jaws:									
Carious teeth	1	...	1	...	...	...	...	...	...
Hæmorrhage after tooth extraction	1	...	1	...	...	...	...	...	...
Malignant disease of upper jaw	2	...	...	1	1	...	...	...	...
Ulcerative stomatitis	3	...	3	...	...	...	...	...	...
Fibrous epulis	3	2	1	...	...	...	...	...	...
Tongue:									
Epithelioma	1	1	...	...	...	...	...	...	...
Syphilitic ulceration	1	1	...	...	...	...	...	...	...
Venous nævus	1	...	1	...	...	...	...	...	...
Cheek:									
Mucous cyst	1	...	1	...	...	...	...	...	...
Salivary glands:									
Parotid tumour, sarcomatous	2	1	1	...	...	...	...	...	...
Fistula of parotid duct after wound	2	1	...	1	...	...	...	...	...

TABLE I.—*continued.*

DISEASES.	Total.	Relieved.		Not Relieved.		Died.		In hosp. 31st Dec., 1893.	
		M.	F.	M.	F.	M.	F.	M.	F.
DISEASES OF THE DIGESTIVE SYSTEM—*continued.*									
Salivary glands—continued.									
Adeno-sarcoma of sub-maxillary gland	1	1	...	...	...	...	...	...	...
Tonsil:									
Hypertrophied	4	1	3	...	...	...	...	...	...
Hæmorrhage after excision	1	...	1	...	...	...	...	...	...
Abscess	2	1	1	...	...	...	...	...	...
Pharynx:									
Adenoids of naso-pharynx	18	11	5	...	1	...	...	1	...
Œsophagus:									
Malignant stricture	3	3	...	...	...	...	...	...	...
Functional dysphagia	1	1	...	...	...	...	...	...	...
Stomach:									
Vomiting	1	...	1	...	...	...	...	...	...
Peritoneum and retro-peritoneal tissue:									
Tubercular peritonitis	1	...	...	...	...	...	...	1	...
Pelvic peritonitis	1	...	1	...	...	...	...	...	...
Abscess ? Gall stones	1	...	1	...	...	...	...	...	...
Subperitoneal lipoma	2	1	1	...	...	...	...	...	...
Intestines:									
Hernia (not strangulated):									
Inguinal	25	23	1	...	...	...	...	1	...
„ epiplocele	1	1	...	...	...	...	...	...	...
Femoral	2	...	2	...	...	...	...	...	...
Ventral, after abdominal section	1	...	1	...	...	...	...	...	...
Hernia (strangulated):									
Inguinal	8	4	1	...	...	3	...	...	...
Femoral	6	...	3	...	...	1	1	...	1
Umbilical	5	...	1	...	...	...	4	...	...
Tubercular ulceration	1	...	...	...	...	...	...	1	...
Carcinoma of colon	1	...	...	1	...	...	...	...	...
Acute intussusception	1	...	...	...	...	...	1	...	...
Suppurating hernial sac	1	...	...	...	...	1	...	...	...
Typhlitis	2	1	...	...	...	...	...	...	1
Melæna, cirrhosis of liver	1	...	1	...	...	...	...	...	...
Rectum and anus:									
Prolapsus	6	2	4	...	...	...	...	...	...
Ischio-rectal abscess	4	2	2	...	...	...	...	...	...
Hæmorrhoids	18	9	7	...	...	...	...	...	2
Fistula	17	16	1	...	...	...	...	...	...
Fissure	1	1	...	...	...	...	...	...	...
Anal ulcer	1	1	...	...	...	...	...	...	...
Papilloma	1	...	1	...	...	...	...	...	...
Epithelioma of anus (old colotomy case)	1	1	...	...	...	...	...	...	...
Carcinoma of rectum	1	1	...	...	...	...	...	...	...
Stricture of rectum, syphilitic	3	...	3	...	...	...	...	...	...

TABLE I.—*continued.*

DISEASES.	Total.	Relieved.		Not Relieved.		Died.		In hosp. 31st Dec., 1893.	
		M.	F.	M.	F.	M.	F.	M.	F.
DISEASES OF THE URINARY SYSTEM:									
Kidney:									
Pyelitis	1	...	1	...	...	...	...	...	...
Calculus	1	...	...	...	...	...	1	...	...
Perinephric abscess	1	...	...	...	...	...	...	...	1
Bladder:									
Cystitis, enlarged prostate and calculi	1	...	...	...	...	1	...	...	...
Tubercular cystitis	1	...	...	...	...	1	...	...	...
Cystitis	5	2	1	...	...	1	...	...	1
Calculus	5	2	...	1	...	1	...	1	...
Atony (influenzal)	1	1	...	...	...	...	...	...	...
Hæmaturia ? Carcinoma	1	1	...	...	...	...	...	...	...
Prostate:									
Enlargement	2	2	...	...	...	...	...	...	...
Abscess	2	1	...	...	...	1	...	...	...
Urethra:									
Stricture	24	21	...	...	...	2	...	1	...
Calculus	2	1	1	...	...	...	...	...	...
Perineal urinary abscess	3	3	...	...	...	...	...	...	...
Extravasation of urine (stricture)	2	1	...	...	...	1	...	...	...
Hæmaturia (cause not discovered)	5	5	...	...	...	...	...	...	...
Retention of urine	3	1	1	...	...	...	...	1	...
DISEASES OF THE MALE GENERATIVE ORGANS:									
Penis:									
Phimosis	24	23	...	...	...	...	...	1	...
Paraphimosis	3	3	...	...	...	...	...	...	...
Balanitis	1	1	...	...	...	...	...	...	...
Tunica vaginalis:									
Hydrocele	11	10	...	...	...	...	...	1	...
Cord:									
Varicocele	10	9	...	1	...	...	...	...	...
Testis:									
Acute epididymitis	10	9	...	...	...	...	...	1	...
Tuberculous	1	1	...	...	...	...	...	...	...
Syphilitic	1	1	...	...	...	...	...	...	...
Undescended	1	...	...	1	...	...	...	...	...
DISEASES OF THE FEMALE GENERATIVE ORGANS:									
Vulva:									
Cyst	1	...	1	...	...	...	...	...	...
Fibroma	1	...	1	...	...	...	...	...	...
Warts	1	...	1	...	...	...	...	...	...
Acute abscess	4	...	4	...	...	...	...	...	...
Recurrent epithelioma	1	...	1	...	...	...	...	...	...

TABLE I.—*continued.*

DISEASES.	Total.	Relieved.		Not Relieved.		Died.		In hosp. 31st Dec., 1893.	
		M.	F.	M.	F.	M.	F.	M.	F.
DISEASES OF THE FEMALE GENERATIVE ORGANS—*continued.*									
Vagina:									
Vaginitis	1	...	...	...	...	...	...	...	1
Uterus and its appendages:									
Ovaritis	2	...	2	...	...	...	...	...	...
Ovarian cyst	1	...	...	...	...	...	1	...	...
Pelvic hæmatocele	1	...	1	...	...	...	...	...	...
Breast:									
Acute abscess	15	1	12	...	...	...	...	...	2
Chronic mastitis and cyst	1	...	1	...	...	...	...	...	...
Tubercular mastitis	1	...	1	...	...	...	...	...	...
Scirrhus, primary	11	...	10	...	...	...	...	...	1
„ recurrent	2	...	2	...	...	...	...	...	...
Adeno-fibroma	2	...	2	...	...	...	...	...	...
DISEASES OF BONES:									
Ostitis and periostitis:									
Of tibia	4	2	2	...	...	...	...	...	...
Of ulna	1	...	1	...	...	...	...	...	...
Acute diffuse periostitis:									
Of tibia	1	...	...	...	...	1	...	...	...
Of femur	3	1	...	...	...	1	...	1	...
Periosteal sarcoma of tibia	1	...	...	...	...	1	...	...	...
Necrosis:									
Of skull, specific	3	...	2	...	...	...	...	1	...
Of superior maxilla	1	...	1	...	...	...	...	...	...
Of inferior „	3	2	1	...	...	...	...	...	...
Of clavicle	1	1	...	...	...	...	...	...	...
Of metacarpal bone	1	1	...	...	...	...	...	...	...
Of phalanx	2	2	...	...	...	...	...	...	...
Of femur	1	...	1	...	...	...	...	...	...
Of tibia	2	2	...	...	...	...	...	...	...
Tubercular caries:									
Of spine	12	4	4	...	...	...	...	2	2
Of pelvis	1	1	...	...	...	...	...	...	...
Of tarsus	2	1	...	...	...	...	...	...	1
Exostosis:									
Subungual	1	...	1	...	...	...	...	...	...
Of femur	2	1	1	...	...	...	...	...	...
Chronic abscess of tibia	1	...	1	...	...	...	...	...	...
Tubercular dactylitis	3	2	1	...	...	...	...	...	...
DISEASES OF STUMPS:									
Tubercular ulceration	1	1	...	...	...	...	...	...	...
Simple „	1	...	1	...	...	...	...	...	...
Necrosis	1	1	...	...	...	...	...	...	...

TABLE I.—*continued.*

DISEASES.	Total.	Relieved.		Not Relieved.		Died.		In hosp. 31st Dec., 1893.	
		M.	F.	M.	F.	M.	F.	M.	F.
DISEASES OF JOINTS:									
Synovitis:									
I. Acute and subacute:									
Of knee	3	1	2	...	...	...	...	...	...
Of wrist	1	1	...	...	...	...	...	...	...
II. Chronic:									
Of knee	5	3	2	...	...	...	...	...	...
Arthritis:									
I. Acute:									
Of shoulder	3	3	...	...	...	...	...	...	...
Of elbow	1	...	...	...	...	1	...	...	...
Of knee	5	4	...	...	...	...	...	1	...
II. Chronic (tubercular):									
Of hip	26	11	10	...	...	1	1	1	2
Of knee	13	11	1	...	...	...	...	...	1
Of wrist	2	...	2	...	...	...	...	...	...
Of elbow	3	...	3	...	...	...	...	...	...
Of metatarso-phalangeal joint	1	1	...	...	...	...	...	...	...
Charcot's disease of knee	1	1	...	...	...	...	...	...	...
Osteo-arthritis	4	...	4	...	...	...	...	...	...
Ankylosis:									
I. Fibrous:									
Of ankle	1	...	1	...	...	...	...	...	...
Of elbow	2	...	2	...	...	...	...	...	...
Of hip	1	...	1	...	...	...	...	...	...
Of tempero-maxillary joint	1	...	1	...	...	...	...	...	...
DISEASES OF MUSCLES, TENDON SHEATHS, AND FASCIÆ:									
Lateral curvature of spine	5	...	5	...	...	...	...	...	...
DISEASES OF BURSÆ:									
I. Acute and sub-acute inflammation:									
Prepatellar	7	...	7	...	...	...	...	...	...
Olecranon	1	1	...	...	...	...	...	...	...
II. Chronic solid enlargement:									
Prepatellar	4	...	4	...	...	...	...	...	...
Olecranon	1	1	...	...	...	...	...	...	...
Chronic fluid enlargement:									
Prepatellar	3	...	3	...	...	...	...	...	...
Olecranon	1	1	...	...	...	...	...	...	...
Semi-membranosus	2	1	1	...	...	...	...	...	...
III. Suppuration:									
Prepatellar	8	...	5	...	...	...	...	2	1
Olecranon	1	1	...	...	..	...	...	...	...
Over trochanter major	1	1	...	...	...	...	...	...	...

TABLE I.—*continued.*

DISEASES.	Total.	Relieved.		Not Relieved.		Died.		In hosp. 31st Dec., 1893.	
		M.	F.	M.	F.	M.	F.	M.	F.
DISEASES OF THE SKIN AND SUBCUTANEOUS TISSUES:									
Gangrene:									
Senile	2	1	...	...	...	...	1	...	...
Diabetic	3	1	1	...	...	1	...	...	...
Traumatic	1	...	1	...	...	...	...	...	...
Carbuncle	6	5	1	...	...	...	...	...	...
Phagedæna of groin	1	1	...	...	...	...	...	...	...
Sinus:									
Of groin, after herniotomy	2	2	...	..	...	...	...	...	...
Of elbow	1	...	1	...	...	...	...	...	...
Over spine (masked spina bifida)	1	1	...	...	...	...	...	...	...
Lumbar	2	...	2	...	...	...	...	...	...
Of hip	2	1	1	...	...	...	...	...	...
Of toe, after amputation	1	1	...	...	...	...	...	...	...
Over patella, after wiring	1	1	...	...	...	...	...	...	...
Of foot (bullet wound)	1	...	...	...	...	...	...	1	...
Abscess:									
I. Acute:									
Mastoid	1	1	...	...	...	...	...	...	...
Alveolar	3	2	1	...	...	...	...	...	...
Of lip	1	...	1	...	...	...	...	...	...
Of neck	1	1	...	...	...	...	...	...	...
Axillary	1	1	...	...	...	...	...	...	...
Of arm	3	2	1	...	...	...	...	...	...
Of forearm	2	...	2	...	...	...	...	...	...
Palmar	6	3	3	...	...	...	...	...	...
Gluteal	2	...	2	...	...	...	...	...	...
Of thigh	4	1	2	...	...	...	...	1	...
Of leg	4	2	2	...	...	...	...	...	...
Of foot	5	3	2	...	...	...	...	...	...
Around knee	1	...	1	...	...	...	...	...	...
Of side	1	...	1	...	...	...	...	...	...
Of scalp	2	...	2	...	...	...	...	...	...
II. Chronic:									
Multiple tubercular	5	2	3	...	...	...	...	...	...
Iliac	2	2	...	...	...	...	...	...	...
Lumbar	1	...	1	...	...	...	...	...	...
Of side	2	1	1	...	...	...	...	...	...
Of chest wall	1	...	1	...	...	...	...	...	...
Of shoulder	1	...	1	...	...	...	...	...	...
Of face	1	1	...	...	...	...	...	...	...
Of back	2	1	1	...	...	...	...	...	...
Of thigh	1	1	...	...	...	...	...	...	...
Frost-bite	2	2	...	...	...	...	...	...	...
Suppurating corn	1	1	...	...	...	...	...	...	...
Whitlow	20	11	8	...	...	...	...	...	1
Cellulitis:									
Of upper extremity, with suppuration	12	6	2	...	...	2	...	2	...

TABLE I.—*continued.*

DISEASES.	Total.	Relieved.		Not Relieved.		Died.		In hosp. 31st Dec., 1893.	
		M.	F.	M.	F.	M.	F.	M.	F.
DISEASES OF THE SKIN AND SUBCUTANEOUS TISSUES—*cont.*									
Cellulitis—*continued.*									
Of upper extremity, without suppuration	10	9	1	...	...	...	...	...	...
Of lower extremity, with suppuration	6	3	3	...	...	...	...	...	...
Of lower extremity, without suppuration	8	4	4	...	...	...	...	...	...
Of face	3	1	2	...	...	...	...	...	...
Of orbit	2	1	1	...	...	...	...	...	...
Of scalp	1	1	...	...	...	...	...	...	...
Of neck	1	...	1	...	...	...	...	...	...
Ulcers:									
I. Simple:									
Of arm	1	...	1	...	...	...	...	...	...
Of leg	1	1	...	...	...	...	...	...	...
II. Varicose:									
Of leg	8	5	3	...	...	...	...	...	...
Of ankle	1	...	1	...	...	...	...	...	...
III. Tubercular:									
Of foot	1	...	1	...	...	...	...	...	...
Of leg	3	3	...	...	...	...	...	...	...
IV. Traumatic:									
Of leg	5	3	1	...	...	...	...	1	...
Of heel	1	...	1	...	...	...	...	...	...
V. Syphilitic:									
Of leg	10	1	6	...	...	...	...	1	2
Of breast	1	...	1	...	...	...	...	...	...
Of face	1	...	1	...	...	...	...	...	...
Cysts:									
Sebaceous:									
Of scalp	2	1	1	...	...	...	...	...	...
Under chin	1	1	...	...	...	...	...	...	...
Of neck	1	1	...	...	...	...	...	...	...
Of side	1	1	...	...	...	...	...	...	...
UNCLASSIFIED:									
Lupus	6	...	6	...	...	...	...	...	...
Rodent ulcer	3	...	3	...	...	...	...	...	...
Eczema	5	2	3	...	...	...	...	...	...
Nævus	3	...	3	...	...	...	...	...	...
Prurigo, hebra	1	1	...	...	...	...	...	...	...
Nævo-lipoma of hand	2	...	2	...	...	...	...	...	...
Lipoma	4	2	2	...	...	...	...	...	...
Fibroma	2	1	1	...	...	...	...	...	...
Fibro-fatty tumour of pelvis	1	...	...	...	...	...	1	...	...
Congenital tumour of neck	1	...	1	...	...	...	...	...	...
Ingrowing toe-nail	3	2	1	...	...	...	...	...	...
Onychia	1	1	...	...	...	...	...	...	...
Gumma	3	1	2	...	...	...	...	...	...

TABLE I.—*continued.*

INJURIES.	Total.	Relieved.		Not Relieved.		Died.		In hosp. 31st Dec., 1893.	
		M.	F.	M.	F.	M.	F.	M.	F.
UNCLASSIFIED—*continued.*									
Hæmatoma	4	2	2	...	...	...	...	...	...
Furuncle	1	1	...	...	...	...	...	...	...
Needle in breast	1	...	1	...	...	...	...	...	...
Œdema of foot (old fracture)	1	...	1	...	...	...	...	...	...
Supposed wasting of leg	1	...	...	...	...	...	...	1	...
Sarcoma of buttock	1	...	1	...	...	...	...	...	...
Sarcoma in front of elbow	1	1	...	...	...	...	...	...	...
INJURIES:									
Burn:									
I. Local	10	5	5	...	...	...	...	...	...
II. Extensive	3	1	...	...	...	...	2	...	...
Scald:									
I. Local	8	5	3	...	...	...	...	...	...
II. Extensive	1	...	...	...	...	...	1	...	...
Injuries of the head:									
Scalp wound	25	20	5	...	...	...	...	...	...
Fracture:									
Vertex, compound	3	1	1	...	...	1	...	...	...
Base	2	1	...	...	...	1	...	...	...
Concussion of brain	28	23	5	...	...	...	...	...	...
Lacerated wound of soft palate	1	1	...	...	...	...	...	...	...
Injuries of the face:									
Contusion	1	...	1	...	...	...	...	...	...
Contused wound	3	3	...	...	...	...	...	...	...
Fracture of inferior maxilla	8	6	2	...	...	...	...	...	...
„ nasal bones	2	2	...	...	...	...	...	...	...
Injuries of the eye:									
Contused wound of sclerotic	3	2	1	...	...	...	...	...	...
Penetrating wound	2	2	...	...	...	...	...	...	...
Injuries of the neck:									
Incised wound, attempted suicide	1	...	1	...	...	...	...	...	...
Contused wound	1	1	...	...	...	...	...	...	...
Lacerated „	1	1	...	...	...	...	...	...	...
Injuries of the back:									
Contusion	4	2	2	...	...	...	...	...	...
Injuries of the chest:									
Contusion	2	2	...	...	...	...	...	...	...
Fractured ribs	3	1	1	...	...	...	...	...	1
„ „ and sternum	1	...	...	...	...	...	1	...	...

TABLE I.—*continued.*

INJURIES.	Total.	Relieved.		Not Relieved.		Died.		In hosp. 31st Dec., 1893.	
		M.	F.	M.	F.	M.	F.	M.	F.
INJURIES—*continued.*									
Injuries of the chest—continued.									
Fractured clavicle	2	1	1	...	...	...	...	...	...
Ruptured lung, no fracture	1	...	...	...	...	1	...	...	...
Injuries of the abdomen:									
Lacerated wound	1	1	...	...	...	...	...	...	...
Contusion of kidney, hæmaturia	2	2	...	...	...	...	...	...	...
Ruptured liver	1	...	...	...	...	1	...	...	...
Injuries of the upper extremity:									
Contusion	3	2	1	...	...	...	...	...	...
Crush of fingers	6	5	1	...	...	...	...	...	...
Contused wound	1	1	...	...	...	...	...	...	...
Incised „	1	1	...	...	...	...	...	...	...
Lacerated „	8	3	4	...	...	...	...	1	...
Fracture:									
I. Simple:									
Of olecranon process	2	2	...	...	...	...	...	...	...
Of humerus	3	1	2	...	...	...	...	...	...
II. Compound:									
Of radius and ulna	1	...	1	...	...	...	...	...	...
Separation of lower epiphysis of humerus	1	1	...	...	...	...	...	...	...
Injuries of the lower extremity:									
Contusion	5	3	2	...	...	...	...	...	...
Contused wound	4	2	2	...	...	...	...	...	...
Incised „	1	1	...	...	...	...	...	...	...
Punctured „	1	1	...	...	...	...	...	...	...
Lacerated „	2	2	...	...	...	...	...	...	...
Crush	4	3	...	...	...	...	...	1	...
Hæmatoma	2	2	...	...	...	...	...	...	...
Fracture:									
I. Simple:									
Of patella	12	10	1	...	...	...	...	...	1
Of fibula	3	3	...	...	...	...	...	...	...
Of tibia	5	4	1	...	...	...	...	...	...
Of tibia and fibula	14	11	...	...	...	...	...	1	2
Of femur (4 intracapsular)	22	16	3	...	...	...	...	2	1
Pott's	2	1	...	...	...	...	...	1	...
II. Compound:									
Of tibia and fibula	5	5	...	...	...	...	...	...	...
Dislocations:									
Of elbow, both bones backwards	2	2	...	...	...	...	...	...	...
Of shoulder, subglenoid	1	1	...	...	...	...	...	...	...
Of thumb	2	2	...	...	...	...	...	...	...

TABLE I.—*continued.*

INJURIES.	Total.	Relieved.		Not Relieved.		Died.		In hosp. 31st Dec., 1893.	
		M.	F.	M.	F.	M.	F.	M.	F.
INJURIES—*continued.*									
Sprain:									
Of knee	3	3	...	...	...	...	...	...	...
Of ankle	15	11	3	...	...	...	...	1	...
Traumatic synovitis:									
Of knee	5	4	1	...	...	...	...	...	...
Of elbow	2	1	1	...	...	...	...	...	...
Of shoulder	1	...	1	...	...	...	...	...	...
Unclassified:									
Swallowed carbolic acid, accidental	1	...	1	...	...	...	...	...	...
Swallowed paraffin, accidental	1	1	...	...	...	...	...	...	...
Swallowed belladonna liniment, accidental	1	...	1	...	...	...	...	...	...
Swallowed ammonia liniment, accidental	1	...	1	...	...	...	...	...	...
Swallowed laudanum, attempted suicide	2	1	1	...	...	...	...	...	...
Supposed poisoning, nil	1	1	...	...	...	...	...	...	...
Swallowed false tooth plate	1	1	...	...	...	...	...	...	...
Immersion, attempted suicide	3	1	2	...	...	...	...	...	...
" accidental	1	1	...	...	...	...	...	...	...
Multiple fractures, one suicide	2	...	...	...	...	2	...	...	...
General bruising	1	1	...	...	...	...	...	...	...
"Run over," no definite injury	3	3	...	...	...	...	...	...	...

TABLE II.—*Operations.*

OPERATIONS.	Total.	Discharged.		Died.		Remarks.
		M.	F.	M.	F.	
HEAD AND NECK:						
For necrosis of skull	2	...	2	...	...	Sequestrotomy. 1 large piece of frontal bone removed, exposing convolutions of brain.
„ bronchocele	1	...	...	...	1	Isthmus divided after ligaturing on either side. Respiration continued so embarrassed that tracheotomy was performed. Death in a few hours. P.M., large cyst on under aspect of L. lobe pressing on trachea.
„ deflection of septum nasi	2	...	2	...	...	Forcibly straightening and plugging nares.
„ rodent ulcer of cheek...	3	...	3	...	...	Excision.
„ secondary epithelioma of cervical glands ...	2	2	...	...	...	Excision. 1 with portion of lower jaw.
„ epithelioma of lip	3	3	...	...	...	V-shaped excision. 1 of upper lip.
„ „ tongue..	1	1	...	...	...	Excision of half with scissors and ecraseur.
„ „ larynx..	1	1	...	...	...	Tracheotomy.
„ venous nævus of tongue	1	...	1	...	...	Electrolysis.
„ nævus of neck	1	...	1	...	...	Harelip pins and ligature.
„ necrosis of lower jaw ...	2	1	1	...	...	Sequestrotomy.
„ adenoids of naso-pharynx	14	10	4	...	...	Forceps and curette.
„ congenital tumour	1	...	1	...	...	Excised.
„ hypertrophy of lower lip	1	...	1	...	...	Excision of wedge-shaped piece, longitudinally, from mucous aspect.
„ thrombosis of lateral sinus	1	...	...	1	...	Clearing out sinus after trephining and excision of upper part of jugular vein. Death in 36 hours, without having regained consciousness.
„ lymphoma	2	1	1	...	...	Excision.
„ tubercular glands	11	6	5	...	...	Excision, or incision and scraping.
„ mucous cyst of cheek...	1	...	1	...	...	Excision.
„ sebaceous cyst	4	3	1	...	...	Dissected out.
„ ankylosis of tempero-maxillary joint	1	...	1	...	...	Excision of condyle.
„ compound depressed fracture of skull.....	1	1	...	...	...	Trephining and elevating fragments.

TABLE II.—*continued.*

OPERATIONS.	Total.	Discharged.		Died.		Remarks.
		M.	F.	M.	F.	
HEAD AND NECK—*contd.*						
For fibrous epulis	3	2	1	...	...	Excising and gouging alveolus.
„ lipoma	1	1	...	...	...	Excision.
„ hare-lip	1	1	...	...	...	Paring and suturing.
„ parotid tumour, sarcomatous	2	1	1	...	...	Excision.
„ sarcoma of submaxillary gland	1	1	...	...	...	„
EYES:						
For lamellar cataract	3	3	...	...	...	Needling.
„ opaque capsule	1	1	...	...	...	„
„ cataract	5	2	2	...	*1	Extraction. *Died on 8th day after operation (done under cocaine). P.M., thrombosis of lower end of aorta, with the main arteries below. Eye did well.
„ internal strabismus	1	...	1	...	...	Division of internal recti.
„ external „	1	...	1	...	...	Dividing external rectus and advancing internal rectus.
„ ptosis	1	...	1	...	...	Excision of elliptical piece of skin from eyelid.
„ leucoma	1	...	1	...	...	Tattooing cornea.
„ angioma of eyelid	1	...	1	...	...	Excision.
„ fibroma of orbit	2	...	2	...	...	„ of growth.
„ glaucoma	2	...	2	...	...	Iridectomy.
„ penetrating wound	2	2	...	...	...	Excision of globe.
THORACIC REGION:						
For axillary abscess	17	9	8	...	...	Opening and draining.
„ empyema	2	2	...	...	...	1 excising portion of rib and draining. 1 Estlander's operation.
„ supposed empyema	1	1	...	...	...	Exploring chest.
„ fibroma	1	...	1	...	...	Excision.
BREAST:						
For scirrhus, primary	9	...	9	...	...	2 amputation of breast. 7 amputation of breast and clearing out axilla.
„ „ recurrent	1	...	1	...	...	Excision of nodules and clearing out axilla.
„ chronic mastitis and cyst	1	...	1	...	...	Amputation of breast.
„ adeno-fibroma	2	...	2	...	...	Excision of growth.
BACK:						
For masked spina bifida	1	1	...	...	...	Dissected out.
„ lipoma	1	...	1	...	...	Excision.

TABLE II.—*continued.*

OPERATIONS.	Total.	Discharged.		Died.		Remarks.
		M.	F.	M.	F.	
ABDOMINAL REGION:						
For inguinal hernia	12	12	...	...	...	Operation for radical cure.
„ „ epiplocele	1	1	...	...	...	„ „
„ strangulated scrotal hernia	1	...	...	1	...	Herniotomy. Gut dark, but shiny. Symptoms of obstruction continued. Laparotomy on 4th day. Gut recovering. Death in 6 hours—exhaustion.
„ strangulated inguinal hernia	7	4	1	*2	...	Herniotomy. *1, an infant, sank exhausted day after the operation. The gut was gangrenous, and was sutured to the skin and incised. *1, aged 32, died collapsed 7½ hours after the operation. Gut apparently recoverable.
„ strangulated femoral hernia	3	...	3	...	...	Herniotomy.
„ strangulated umbilical hernia	5	...	1	...	*4	Herniotomy. *1 in 14 hours from collapse. P.M., commencing peritonitis. 1 in 12 hours and 1 in 2 hours from collapse. Gut gangrenous in both, and was fixed *in situ* and freely incised. 1 on 3rd day from exhaustion. Excessive vomiting last few hours. Obstruction continued. P.M., gut claret-coloured and doubtfully recoverable.
„ malignant stricture of œsophagus	3	3	...	...	...	Gastrostomy in two stages.
„ ovarian cyst	1	...	...	...	1	Ovariotomy. Very thick pedicle. Wound opened on 4th day for internal hæmorrhage, and again closed. Death on 10th day from peritonitis.
„ carcinoma of colon	1	1	...	...	...	Abdominal section. Nothing further was done.
„ subperitoneal lipoma	2	1	1	...	...	Excision. Appeared in groin through femoral canal. On both sides in one case.
ABOUT RECTUM AND ANUS:						
For hæmorrhoids	14	9	5	...	...	11 clamp and cautery. 2 ligature. 1 Whitehead's operation.
„ fistula	13	13	...	...	...	Division.

TABLE II.—*continued*.

OPERATIONS.	Total.	Discharged. M.	Discharged. F.	Died. M.	Died. F.	Remarks.
ABOUT RECTUM AND ANUS—*continued*.						
For sinuses due to bone disease	1	1	...	...	...	Free division.
„ papilloma	1	...	1	...	...	Removal.
GENITO-URINARY ORGANS:						
For phimosis	16	16	...	...	...	Circumcision.
„ renal calculus	1	...	...	...	1	Æt. 34. Symptoms since childhood. Much worse lately. Nephrolithotomy. Death in 14 days from uræmia. P.M., other kidney had disappeared, nothing remaining but a collapsed capsule. Ureter patent, no calculus.
„ vesical calculus	5	4	...	*1	...	1 lateral lithotomy through scar of a previous operation. Phosphatic. 1 æt. 7, lateral lithotomy, 335 grains uric acid. *Æt. 78, on 26th day after suprapubic lithotomy from exhaustion. Similar operation 2 years before. 1 lithotrity, 11 grains phosphatic débris: subsequently lateral lithotomy, with removal of more phosphatic fragments. 1 æt. 4, median lithotomy; uratic calculus size of large hazel nut.
„ urethral calculus	2	1	1	...	...	Extracted.
„ hydrocele	2	2	...	...	...	Excising portion of thickened tunica vaginalis.
„ old hæmatocele	1	1	...	...	...	Excision, including testicle.
„ tubercular testis	1	1	...	...	...	Castration.
undescended testicle	1	1	...	...	...	Æt. 16. Incision over inguinal canal, but testicle could not be found.
„ varicocele	9	9	...	...	...	Excision of veins.
„ stricture of urethra	7	6	...	*1	...	Rapid dilatation with Lister's sounds. 1 Holt's operation. 1 Wheelhouse's operation. *Æt. 48; on 11th day from suppurative nephritis.
„ perineal abscess	1	1	...	...	...	Perineal section and dilatation of stricture.
„ extravasation of urine	2	2	...	...	...	Free incisions.
„ fibroma of labium	1	...	1	...	...	Excision.
„ cyst of labium	1	...	1	...	...	„

TABLE II.—*continued.*

OPERATIONS.	Total.	Discharged.		Died.		Remarks.
		M.	F.	M.	F.	
GENITO-URINARY ORGANS—*continued.*						
For recurrent epithelioma of vulva	1	...	1	...	...	Removal of growth (incomplete).
ON THE UPPER LIMB:						
For fibrous ankylosis of elbow	1	...	1	...	...	Breaking down adhesions.
„ acute arthritis of shoulder	3	3	...	...	...	1 excision of head of humerus. 1 opening and draining. 1 enlarging sinus and scraping.
„ tubercular disease of wrist	1	...	1	...	...	Enlarging sinus and scraping carpus.
„ tubercular disease of elbow	3	...	2	1	...	1 incision and scraping. 1 excision of joint. 1 died of sapræmia on 22nd day after opening and draining joint.
„ chronic enlargement of olecranon bursa	2	2	...	...	...	Bursa dissected out.
„ nævo-lipoma of hand	1	...	1	...	...	Setons.
„ sarcoma in front of elbow	1	1	...	...	...	Excision of growth.
„ aneurismal varix of hand	1	...	1	...	...	Dissected out, pressure having failed.
„ necrosis of clavicle	1	1	...	...	...	Excision of outer fourth.
ON THE LOWER LIMB:						
For talipes equino-varus	2	2	...	...	...	Division of tendo achillis.
„ pes planus	6	5	1	...	...	3 cuneiform tarsectomy. 3 "firing."
„ curved fibulæ	1	1	...	...	...	Both fractured.
„ genu valgum	2	1	1	...	...	Ogston's osteotomy.
„ congenital malformation of leg	1	...	1	...	...	Osteotomy of fibula
„ chronic fluid enlargement of prepatellar bursa	3	...	3	...	...	1 injected with iodine. 1 incision and drainage. 1 excision.
„ chronic solid enlargement of prepatellar bursa	4	...	4	...	...	Excision.
„ enlarged semi-membranosus bursa	2	1	1	...	...	1 excision. 1 injected with iodine.
„ suppuration of bursa patella	5	...	5	...	...	Incision and drainage.
„ fibrous ankylosis of ankle	1	...	1	...	...	Dividing tendo achillis and wrenching.

TABLE II.—*continued.*

OPERATIONS.	Total.	Discharged.		Died.		Remarks.
		M.	F.	M.	F.	
ON THE LOWER LIMB—*cont.*						
For ankylosis of hip in faulty position	3	1	2	...	...	Osteotomy below trochanter.
„ old dislocation of hip	1	...	1	...	...	Incision and replacing head of femur in acetabulum, followed by extension—much improved.
„ subungual exostosis	1	...	1	...	...	Removal of exostosis.
„ exostosis of femur	2	1	1	...	...	Removal.
„ tubercular disease of stump	1	1	...	...	...	Excision of ulcer.
„ tubercular disease of knee	4	3	1	...	...	2 trephining head of tibia. 1 excision. 1 arthrectomy.
„ morbus coxæ	2	...	1	...	1	1 opening abscess. 1 died in 20 minutes of morbus cordis, after scraping sinus under gas.
„ tubercular disease of tarsus	1	1	...	...	...	Gouging and scraping.
„ chronic abscess of tibia	1	...	1	...	...	Incision and gouging.
„ necrosis of tibia	1	1	...	...	...	Sequestrotomy.
„ „ metatarsal bone	1	1	...	...	...	„
„ „ femur	1	...	1	...	...	„
„ acute arthritis of knee	3	3	...	...	...	Incision and drainage.
„ fractured patella	2	2	...	...	...	Encircling with silk by 2 lateral incisions.
„ varicose veins	20	15	5	...	...	Excision. 2 acu-pressure. 1 ligature.
„ fibroma of hip	1	1	...	...	...	Excision.
„ lipoma of buttock	1	...	1	...	...	„
„ sarcoma „	1	...	1	...	...	„ of growth.
„ nævus of thigh	1	...	1	...	...	Ligatured.
„ sciatica	1	1	...	...	...	Stretching nerve. Similar operation 5 years before with relief.
„ popliteal aneurism	1	1	...	...	...	Ligature of superficial femoral artery in scarpa's triangle. Opposite external iliac artery previously ligatured for aneurism.
„ ingrowing toe nail	1	...	1	...	...	Removal of V-shaped piece of toe.
„ diabetic gangrene of toe	1	1	...	...	...	Removal of toe.
AMPUTATION—						
Of fingers	6	5	1	...	...	For crush or whitlow.
Of toes	2	1	1	...	...	For crush.
Of thigh	6	4	1	1	...	1 for tubercular disease of knee; excision previously.

1 for tubercular ulceration of leg; other leg previously removed. 1 for infective periostitis of femur. 1 for traumatic gangrene of leg. 1 for suppurative arthritis of knee. 1 for periosteal sarcoma of tibia; death from shock on 3rd day.

TABLE III.—*Cases of Infectious Diseases during the Year* 1893.

Sex.	Age.	Date of Admission.	Disease for which Admitted.	Hospital Disease.	Result and Date.
F.	12	October 25, 1892	Tubercular disease of knee...	Facial erysipelas	To Infirmary, January 4.
F.	17	December 1, „	„ elbow .	Scarlet fever	To Fever Hospital, January 11.
M.	56	„ 9, „	Diabetic gangrene of toe.....	Pyæmic abscess of brain.....	Died January 11.
M.	7 months	April 5, 1893	Suppurating hernial sac	Septic pericarditis, &c.	„ April 14.
M.	2½	„ 17, „	Phimosis.....	Diphtheria	„ May 6.
M.	4	„ 21, „	Tubercular disease of knee...	Scarlet fever	To Fever Hospital, April 25.
M.	21	May 9, „	Pes planus	„	„ June 20.
F.	5	June 7, „	Inflamed cervical glands.....	„	„ June 9.
M.	48	July 3, „	Sinus of side	Pyæmia	Died July 26.
M.	57	„ 5, „	Cellulitis of hand.....	„	„ July 12.
M.	34	„ 10, „	Phlegmonous erysipelas of leg	Phlegmonous erysipelas	„ July 12.
M.	47	August 2, „	„ scrotum	„	„ August 7.
M.	27	„ „ „	Cellulitis of hand	Scarlet fever	To Fever Hospital, August 3.
F.	4	September 2, „	Inflamed cervical glands.....	Diphtheria	Recovered September 12.
M.	35	„ 17, „	Erysipelas of arm.....	Erysipelas	To Medical Ward, Sept. 18.
M.	35	„ 18, „	Diffuse periostitis of femur...	Septic pneumonia.....	Died September 26.
F.	19	November 26, „	Facial erysipelas	Erysipelas	To Infirmary, November 27.
M.	46	„ 27, „	Cellulitis of arm	Septic pneumonia.....	Died December 15.

REPORT OF CASES IN "ARDEN WARD"

(FOR DISEASES OF WOMEN)

DURING THE YEAR 1893.

By FREDK. MORETON, R.O.A.

Number of cases in "Arden" on January 1st, 1893.....	7
Number of cases in "Arden" on January 1st, 1894.....	9
Number of cases treated during the year 1893	121
Number of deaths 8*, being 6·6 per cent.	

* 1 Puerperal eclampsia.
1 Moribund on admission.
1 Pelvic abscess.
1 Uncontrollable vomiting.
1 General tuberculosis.
1 Peritonitis due to rupture of ovarian cyst.
1 Peritonitis after abdominal section.
1 Peritonitis following confinement, complicated by ovarian cyst.

TABLE III.—*Cases of Infectious Diseases during the Year* 1893.

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M.	56	„ 9, „	Diabetic gangrene of toe.....	Pyæmic abscess of brain.....	Died January 11.
M.	7 months	April 5, 1893	Suppurating hernial sac	Septic pericarditis, &c.	„ April 14.
M.	2½	„ 17, „	Phimosis.....	Diphtheria	„ May 6.
M.	4	„ 21, „	Tubercular disease of knee...	Scarlet fever	To Fever Hospital, April 25.
M.	21	May 9, „	Pes planus	„	„ June 20.
F.	5	June 7, „	Inflamed cervical glands.....	„	„ June 9.
M.	48	July 3, „	Sinus of side	Pyæmia	Died July 26.
M.	57	„ 5, „	Cellulitis of hand.....	„	„ July 12.
M.	34	„ 10, „	Phlegmonous erysipelas of leg	Phlegmonous erysipelas	„ July 12.
M.	47	August 2, „	„ scrotum	„	„ August 7.
M.	27	„ „ „	Cellulitis of hand	Scarlet fever	To Fever Hospital, August 3.
F.	4	September 2, „	Inflamed cervical glands.....	Diphtheria	Recovered September 12.
M.	35	„ 17, „	Erysipelas of arm.....	Erysipelas	To Medical Ward, Sept. 18.
M.	35	„ 18, „	Diffuse periostitis of femur...	Septic pneumonia.....	Died September 26.
F.	19	November 26, „	Facial erysipelas	Erysipelas	To Infirmary, November 27.
M.	46	„ 27, „	Cellulitis of arm	Septic pneumonia.....	Died December 15.

DURING THE YEAR 1895.

BY [illegible] MORETON, R.C.S.

Cases in "Arden Ward."

Nature of Case.	No. of Case.	Initials.	Age.	Result.	No. in Register.	Remarks, treatment, &c.
Uterus:						
Fibroid	I	H. S.	43	Relief	R. 123	Interstitial. Electrolysis 8 times.
	II	G. B.	22	Cured	S. 21	Interstitial. Dysmenorrhœa.
	III	C. B.	53	Relief	S. 88	Interstitial. Electrolysis 16 times.
	IV	E. L.	42	„	T. 2	Interstitial.
	V	E. C.	53	„	R. 164	Interstitial. Suppurating.
	VI	E. K.	49	„	S. 5	Interstitial.
	VII	M. W.	45	„	S. 37	Interstitial.
	VIII	M. H.	44	Cured	S. 48	Fibroid polypus. Removed.
Retroflexion	I	A. N.	29	Relief	S. 1	
	II	E. B.	28	„	S. 76	Reduced. Pessary inserted.
	III	E. C.	33	„	S. 92	Dysmenorrhœa.
Retroversion	I	M. S.	43	„	R. 110	
	II	E. P.	53	„	R. 145	Reduced. Pessary inserted.
	III	A. A.	32	„	R. 154	Incontinence of urine.
	IV	V. H.	23	„	R. 168	Menorrhagia.
	V	E. B.	45	„	S. 60	Fibroid tumour. Retention of urine. Cystitis.
	VI	A. P.	28	„	T. 5	Dysmenorrhœa. Sterility.
Sarcoma	I	E. B.	47	„	S. 94	
Procidentia	I	E. D.	50	„	S. 27	Bronchitis and emphysema.
	II	C. D.	47	„	S. 63	
Endometritis	I	M. C.	44	„	S. 15	Chronic.
Areolar Hyperplasia	I	D. W.	28	„	R. 150	

CERVIX UTERI:						
Malignant disease	I	S. G.	35	No relief	R. 16	Uterus fixed.
	II	K. P.	28	„	R. 115	Fungating and distorted.
	III	E. T.	35	Relief	R. 175	Actual cautery applied.
	IV	C. B.	29	„	S. 23	Actual cautery applied.
	V	M. B.	36	Recovery	S. 71	Removed. Actual cautery applied after.
	VI	M. R.	49	Relief	S. 72	Removed. Actual cautery applied after.
Polypi.....	I	C. F.	38	„	S. 42	Mucous. Removed by torsion.
	II	H. T.	40	Cured	S. 80	Fibroid. Removed by scissors.
	III	E. B.	50	„	S. 89	Mucous. Removed by torsion.
Stenosis	I	B. C.	27	Relief	T. 4	Os intermun. Dysmenorrhœa. Sterility.
Supravaginal hypertrophy.....	I	C. S.	22	Cured	S. 90	Amputation. Galvano-cautery.
OVARY:						
Chronic Ovaritis	I	E. P.	21	Relief	R. 101	Left side. Catamenia irregular.
	II	M. S.	25	„	R. 135	Left side.
	III	A. H.	25	„	R. 151	Left side. Menorrhagia.
	IV	M. R.	28	„	R. 176	Left side. Hyperæsthesia.
	V	E. B.	25	„	S. 13	Right side.
	VI	R. B.	28	„	S. 44	Left side.
	VII	M. B.	20	„	T. 3	Left ovary enlarged.
TUMOURS:						
Cystic.....	I	M. C.	50	Death	R. 159	Ovariotomy.
	II	M. O.	28	Relief	R. 172	Rheumatic fever and pericarditis. Left hospital at own request. *Vide* S. 41.
	III	E. C.	47	Death	R. 171	Abscess ruptured. Salpingitis. Retention and pseudo-prolapse.
	IV	M. O.	28	Cured	S. 41	Suppurating. Adhesions. Ovariotomy.
	V	C. S.	31	„	S. 78	Ovariotomy. Multilocular.
	VI	A. W.	56	Recovery	S. 85	Ovariotomy.
Solid	I	A. F.	24	„	S. 35	Ovariotomy.
Nondevelopment	I	B. T.	17	Transferred	S. 62	Infantile uterus. Cystitis.

CASES IN "ARDEN WARD"—*continued.*

Nature of Case.	No. of Case.	Initials.	Age.	Result.	No. in Register.	Remarks, treatment, &c.
PREGNANCY AND ITS ACCIDENTS—*continued:*						
Abortion	V	M. B.	25	Relief	S. 45	Sequelæ.
	VI	R. G.	24	Recovery	S. 66	Sequelæ.
	VII	M. S.	33	„	S. 82	Menorrhagia.
	VIII	M. W.	40	Relief	T. 1	Menorrhagia.
Early Pregnancy	I	A. L.	39	Recovery	S. 68	Menorrhagia.
Eclampsia	I	J. S.	27	Death	S. 91	Puerperal. Broncho-pneumonia.
Peritonitis	I	S. C.	31	„	S. 11	Pregnancy, complicated by ovarian cyst.
SEPTIC PROCESSES:						
Septicæmia	I	A. M.	25	„	R. 107	
	II	A. W.	32	Cured	S. 69	
	III	E. L.	22	Transferred	S. 70	Phthisis.
DISORDERS OF MENSTRUATION:						
Amenorrhœa	I	A. G.	19	Relief	R. 103	
	II	L. B.	30	„	R. 126	Bronchitis.
Dysmenorrhœa	I	R. J.	31	„	R. 121	Membranous.
	II	M. H.	25	„	R. 170	Sterility. Incision.
	III	M. H.	26	„	S. 3	Sterility. Incision.
	IV	E. L.	24	„	S. 84	Cervix dilated.
Menorrhagia	I	M. S.	48	„	R. 132	Hyperplasia.
	II	S. L.	45	„	R. 163	
	III	K. W.	29	„	S. 25	
	IV	A. A.	21	„	S. 57	Constipation.
	V	B. T.	19	Cured	S. 87	Chill.

UNCLASSIFIED :						
Cyst.....	I	E. P.	39	Cured	R. 98	In femoral ring. Removed
	II	E. B.	47	Relief	S. 40	Of inguinal canal. Removed.
Spurious pregnancy	I	E. L.	32	„	R. 128	
Carcinoma	I	M. R.	36	NoCarcinoma	S. 58	Sent for diagnosis.
Enlarged inguinal ring	I	E. R.	25	Nothing done	S. 59	
Swelling and œdema ...	I	S. A.	28	Transferred	S. 65	Left leg.
Neurasthenia	I	R. C.	34	Recovery	S. 86	

REPORT

OF THE

POST-MORTEM EXAMINATIONS MADE IN 1893.

BY DR. HEBB.

CASES RECORDED		255
Males	149	
Females	86	
GENERAL DISEASES:		
Enteric fever	2	
Erysipelas	3	
Pertussis	1	
Diphtheria	9	
Influenza	2	
Tuberculosis	13	
Pyæmia	8	
Syphilis	3	
Leukhæmia	1	
Rickets	1	
Diabetes	1	
Alcoholism	1	
Malformation	1	
	—	46
DISEASES OF THE NERVOUS SYSTEM:		
Hæmorrhage	5	
Abscess	1	
Meningitis	1	
Chronic spinal meningitis	1	
Convulsions	3	
	—	11
DISEASES OF THE CIRCULATORY SYSTEM:		
Valvulitis	19	
Carditis	1	
Dilated heart	1	
Adipose heart	1	
Congenital heart	4	
Aneurysm	5	
Thrombosis	1	
Pericarditis	1	
	—	33

Diseases of the Respiratory System:		
Bronchitis	1	
Broncho-pneumonia	21	
Pneumonia	20	
Chronic-pneumonia	1	
Phthisis	16	
Cancer of lung	1	
Pleuritis	1	
Empyema	2	
Chronic pleuritis	1	
Cancer of pleura	1	
	—	64
Diseases of the Digestive System:		
Tonsillitis	1	
Duodenal ulcer	1	
Intussusception	1	
Diarrhœa	4	
Cancer of stomach	4	
Cancer of intestine	3	
Abscess of liver	1	
Cirrhosis	6	
Peritonitis	9	
	—	30
Diseases of the Urinary System:		
Nephritis	7	
Nephrosis	1	
Cystitis	2	
Renal calculus	2	
Vesical ,,	1	
Enlarged prostate	1	
	—	14
Diseases of the Generative System:		
Cancer of ovary	2	
	—	2
Diseases of the Ear:		
Otitis	2	
	—	2
Operations and Surgical Diseases:		
Amputation at knee joint	1	
Cyst of thyroid	1	
Urethral obstruction	3	
Hernia	5	
Gangrene of lower extremity	2	
Ovariotomy	2	
Fractures	6	
Rupture of lung	1	
,, liver	1	
,, intestine	1	
Burn	3	
Asphyxia	1	
Fatty tumour of pelvis	1	

OPERATIONS AND SURGICAL DISEASES—*continued.*		
Ptomaine poisoning	1	
Opium „	1	
Chloroform „	1	
	—	31
UNCLASSIFIED		2

Remarks and short notes on most of the foregoing cases. The numbers from 317 *to* 401 *refer to the folios in vol.* vii.; *from* 1 *to* 176 *to those in vol.* viii. *of the P. M. Registers.*

GENERAL DISEASES.

Enteric fever.—142. F., 16. Well marked enteric lesions in ileum; spleen 11½ ozs., soft; mesenteric glands much enlarged. Thick diphtheritic membrane from fauces downwards to bronchi. Nearly whole of right lung in condition of diphtheritic broncho-pneumonia.

144. M., 26. Well marked enteric ulcers in ileum; mesenteric glands much enlarged. Piamater much injected; adherent to cortex, which is pink. (Meningitis.)

Erysipelas.—82. M., 34. Diffuse suppuration of cellular tissue of left lower extremity. Mitral stenosis. Numerous yellow hard uncapsuled nodules, varying in size from hemp seed to peas in liver and spleen.

150. M., 27. Of face. Spleen 16 ozs., very dark in color; extremely soft.

160. M., 1 month. Brawny induration of ears and of skin of neck and back of head. Ductus arteriosus as large as main pulmonary.

Diphtheria.—20. M., 2½. Tracheotomy; membrane on fauces, and from larynx to bronchi. Hæmorrhagic diphtheritic broncho-pneumonia. Heart 3¾ ozs.; shape, globose. Hypertrophy of ventricles. Defect of interauricular and interventricular septa mitral and tricuspid flaps being continuous. Left auricle small. Pulmonary artery and branches large. Recent removal of prepuce, wound healthy.

40. F., 3½. Tracheotomy. Membrane from larynx downwards, ending in bronchi as suppurative bronchitis. No pneumonia, but lungs in a condition of acute emphysema.

118. M., 1¾. Membranes from epiglottis downwards. Broncho-pneumonia.

134. M., 3. Tracheotomy. Membrane in larynx, on fauces and posterior nares.

138. F., 4. Membrane on nasal faucial and pharyngeal mucosa. Lungs in condition of acute emphysema.

148. M., 6½. Membrane on nares fauces pharynx, and from larynx to bronchi. Hæmorrhagic diphtheretic broncho-pneumonia. Patch of membrane on gastric mucosa at pyloric end and on lesser curvature. Injection of Peyer's patches.

149. M., 6 months. Membrane on roof of mouth and on nasopharyngeal mucosa. The gastric mucosa is everywhere of a bright scarlet hue, and near pylorus are a few patches of a darker hue where there is some superficial necrosis of the mucosa.

165. M., 7. Membrane on tonsils, soft palate and posterior surface of epiglottis. Gastro-intestinal mucosa highly injected and of a pinkish hue throughout. Heart 2¾ ozs. in systole; blood fluid. Died quite suddenly. Pneumo-gastric nerves treated with 1 per cent. osmic acid showed no obvious degeneration.

167. M., 9. Naso-pharyngeal mucosa covered with ichorous discharge but no membrane, though mucosa and sub-mucosa are yellowish, hyperæmic, and swollen. Bronchitis; hæmorrhagic diphtheretic broncho-pneumonia. Meningitis: otitis media.

Influenza.—369. M., 24. Nothing noteworthy, except that the spleen (5¾ ozs.) was of softish consistence, though this was not uniform, owing to the presence of numerous purplish infarcts. Fæces in large gut of a bright green hue; in small gut soft and yellow. Large indurated chancre on left side of prepuce.

164. M., 32. Very adipose; congenital absence of right testicle. Liver 136 ozs., yellow, soft, friable, capsule strips easily. Spleen 6 ozs., very dark, soft almost to diffluence. Kidneys 16 ozs. Heart 20 ozs.; much supraperi and sub-epicardial adipose tissue; in diastole. Endocardium normal; pleuræ, smooth, shiny, free. Lower half of right upper lobe consolidated. The consolidation is of the consistence of ordinary lobar-pneumonia; the lobulation is, however, well seen: it is of

a mouse colour and has not the granular appearance of croupous pneumonia on section. This patient fell down dead in the street.

Tuberculosis.—345. M., 3. Rickets; tubercular cerebro-spinal meningitis; tubercles in lungs, pleura, liver, kidneys, spleen; lymphatic glands. Otitis; cadaveric softening of œsophagus into right pleural sac.

366. M., 2. Tubercular cerebro-spinal meningitis; suppurative otitis; tubercles in lungs, liver, spleen, and lymphatic glands.

367. M., 11. Hæmorrhagic meningitis at base and in transverse fissure; hæmorrhagic softening of inner wall of both descending cornua; areas of softening size of Spanish nuts. Chronic pleuritis; fibro-caseous degeneration of both lungs, in which are a few recent tubercles; tubercular peritonitis; tubercular ulceration of intestines; mesenteric glands large, soft, caseous. A few large yellow tubercles in liver; none in spleen.

377. F., 8. Chronic pleuritis; tubercles in both lungs which are fibrosed, caseous, and excavated in many places. Numerous tubercular ulcers in intestines, chiefly in jejunum and upper part of ileum. The lymphatic glands are everywhere large, caseous, and tubercular.

379. F., 5. Chronic pleuritis. Fibroid pigmented tubercles in lungs, which also show numerous excavations; numerous tubercular ulceration in jejunum and ileum; lymphatic glands large, caseous, tubercular.

15. F., 8 months. Tubercular meningitis; cord nil; otitis media; necrosis of lung; tubercles in lungs, intestinal mucosa, liver, spleen, kidneys, and lymphatic glands. Right kidney lies on pelvic brim.

17. F., 53. Lower half of left pleuræ greatly thickened; fibrosis and pigmentation of left upper lobe. Bronchi dilated; recent miliary tubercles all over both lungs, on intestinal mucosa, liver and kidneys; chronic pelvic peritonitis. Thyroid large, colloid, cystic.

44. M., 2 months. Otitis media; miliary tubercles in lungs, pleuræ, intestinal mucosa, liver, spleen, kidney, and lymphatic glands; caseous broncho-pneumonia of both lower lobes of lungs.

59. M., 6. Tubercular meningitis; caseous nodule size of large pea in left lobe of cerebellum; tubercles in lungs, liver, spleen, and kidneys; tubercular ulcerations in intestinal mucosa. Large masses of caseation in lungs, liver, spleen, and lymphatic glands.

67. M., 5. Tubercular cerebro-spinal meningitis; eighteen caseous masses in cortex of cerebrum and cerebellum; tubercles in lungs, intestinal mucosa, liver, spleen, kidneys, and lymphatic glands. Cadaveric softening of œsophagus into right pleural sac.

98. F., 25. Both lungs nearly consolidated throughout from massing together of caseating tubercles, which in many places have broken down into cavities; chronic pleuritis; tubercular peritonitis; tubercles in spleen and kidneys; abscess in fundus uteri and in pelvic cellular tissue.

105. F., 5. Tubercular cerebro-spinal meningitis; caseous mass with secondary tubercles in right upper lobe; both lower lobes in condition of red hepatization; tubercles in lymphatic glands and in right kidney. Left kidney ½ oz., in condition of simple atrophy.

156. F., 7. Tubercular meningitis; tubercles in lungs, liver, spleen, and kidneys.

Pyœmia.—321. M., 17. Periostitis, femur; septic pleuritis; abscesses in lungs; recent vegetations on aortic valve; disintegrated clot in femoral and crural veins, which on microscopical examination (Gram) showed micrococci with marked tendency to form tetrads.

3. M., 7 months. Operation on right cord; cord much thickened; internal ring closed but knuckle of ileum is adherent; suppurative pleuritis; broncho-pneumonia; suppurative pericarditis; otitis media.

65. M., 44. Suppurative meningitis; purulent fluid with lymph in both pleural sacs; large soft vegetations on aortic cusps; atheroma of aorta. Left knee-joint full of pus; pus in sheaths of flexor tendons of legs.

66. M., 54. Abscesses of prostate; diffuse suppuration of pelvic cellular tissue; abscesses in both kidneys; small white hard calculus in right half of prostate.

81. M., 57. Diffuse suppurative cellulitis of right hand; pus in right knee and ankle-joints.

117. M., 35. Pus in right knee-joint; periostitis and necrosis of femur; suppurative pleuritis; septic infarcts of lungs; bronchitis. Liver 104 oz., bestudded all over with softish, amorphous-looking, reddish spherules, varying in size from a pin's head to a pea. Liver of a brownish hue generally, and of fairly normal consistence. Spleen 21 ozs., dark, almost diffluent; miliary abscesses of kidneys; gummata in both testicles.

159. M., 15. Suppurative periostitis of left clavicle. Bone necrosed; septic pleuritis and septic pneumonia.

169. M., 46. Diffuse suppuration of soft tissues of right hand and forearm; septic pleuritis; abscesses of lungs.

Syphilis.—375. M., 41. Testicles atrophied, converted into white fibrous tissue within which are masses of calcification. Kidneys 15 ozs., surface granular, cortex speckled. Liver 110 ozs., contains several large gummata; fatty; pancreas large, firm, buff-coloured, several calculi in ducts; fat-necrosis of omentum. Much "bilious" fluid in peritoneal sac; rupture of gall bladder; gastro-intestinal mucosa nil.

385. M., 5 weeks. Congenital. Much emaciated; mammæ are large, the left being about size of sixpenny piece, discoidal in shape, firm, but not indurated; no lobulation, no circumjacent hyperæmia. On microscopical examination the enlargement appeared to be due to dilation of ducts, so that alveoli were formed, and these were packed with epithelioid cells and granular detritus, chiefly the latter.

Leukhæmia.—346. F., 27. Spleen 67 ozs.; capsule thick; substance firm, beefy, of a brick-red hue; liver 162 ozs., very soft; of a pale reddish brown colour; numerous small yellow spherules in cortex of kidneys. Abdominal lymphatic glands large, soft, yellow. The veins generally are full and the blood therein is of a brown-red hue; much of the contents is clot, which is granular and frequently of a yellowish colour. Microscopical examination of liver showed that the characteristic hepatic structure is entirely lost. Almost no liver cells remain, though many of their skeletons are visible, they are greatly atrophied, and almost all are without nuclei. There are many fat

globules. The altered appearances are due to the greatly distended capillaries which are filled with large roundish granular cells; most of them stain badly, except in a few places, chiefly in the larger vessels. The characteristic structure of the spleen is much altered. The larger trabeculæ are well seen. The most striking features are the absence of malpighians and the general thickening of the fine splenic framework. There is a general fibrosis in fact. The network shows large and diffuse areas, where the red corpuscles are predominant, and one fact with regard to these corpuscles is perhaps worth noticing. Some of these stain red (acid rubin), while others remain yellow; this probably indicates that they have a different chemical reaction and composition. In the rest of the spaces are large nucleated cells (leucocytes ?). But in these parts there is a great resemblance to some forms of sarcoma.

Rickets.—2. M., 6 months. Head large; anterior fontanelle large, sutures wide. Ossification of cranial bones uneven. Ribs much beaded. Ends of radii large. Spleen 1¼ ozs., dark purple, beefy. Kidneys 2 ozs., almost white. Ureters greatly distended. Under microscope, urine from bladder, which contained about 2 ozs. of turbid yellow fluid, shows chiefly amorphous urates, but also collections of spherical striated yellow crystals (urate of soda). Died in convulsion.

Diabetes.—107. M., 15. Liver 58 ozs., not specially noteworthy. Pancreas 1¼ ozs., soft, flabby, of a light brick-red hue throughout. Duct quite patent. Gastro-intestinal mucosa is throughout swollen, sodden, œdematous, very hyperæmic, of a brick-red hue, and covered with thickish layer of mucus. No ulceration. Fæces firm, of a bright olive-green colour; offensive. Thyroid large.

Alcoholism.—147. F., 48. Large patches of capillary hæmorrhage into skin of hypogastric region and at lower border of both mammæ. Œdema of feet and legs, lungs much engorged; friable, but no distinct evidence of pneumonia. Liver 72 ozs., smooth, tough, buff coloured; no excess of fibrous tissue to naked eye. Spleen 9 ozs., extremely soft. Kidneys 15 ozs., firm, smooth, dark purple. Uterine cavity filled with

black clot; numerous petechiæ and diffuse hæmorrhagic extravasations into mucosa of ileum and colon. This patient was brought in dead, and I was of opinion that she died of some unrecognizable acute specific disorder acting on an organism much enfeebled by drink.

Malformation, cleft palate.—351. F., 6 weeks. Double harelip and complete cleft palate. Ductus arteriosus still open. Died of "marasmus," from inability to suck.

Diseases of the Nervous System.

Hæmorrhage.—383. M., 50. Hæmorrhage into left basal ganglia passing to the right ventricle and along iter to 4th, from which it projects on both sides in the angle formed by cerebellum, pons and medulla. Dura thick; pia thick and opaque. Arteries of pia atheromatous. Mass of pigmented fibroid tissue in which are some caseous nodules, lies at root of right lung. Heart: arteries of trunk and extremities nil. Kidneys nil. Liver 73 ozs., colour generally red, but mottled all over with irregular areas of pale buff colour, apparently swollen lobules; consistence about normal. Spleen 10¼ ozs., flabby, soft, almost diffluent.

48. M., 60. Hæmorrhage into right basal ganglia, passing along iter to 4th ventricle. Arteries of pia, to naked eye, seem fairly normal, as also do those of the rest of the body. Heart 16 ozs.; left ventricle hypertrophied. Kidneys 3½ and 6½ ozs.; consistence flabby; colour pale red, mottled with yellow areas; surface coarsely granular; cortex much wasted; cysts. In all the joints of the extremities, except the hip and shoulder, is a copious deposit of urate of soda.

130. M., 34. Large hæmorrhage into arachnoid space. Over right hemisphere lies soft black clot, which is somewhat adherent to dura; the layer nearest this membrane being partially decolourized. The right hemisphere, especially in parietal region is much depressed. The hæmorrhage is entirely within the arachnoid space. The bleeding vessel was not found. There was no fracture; other parts and viscera nil.

155. F., 52. Hæmorrhage into left basal ganglia. Arteries throughout the body show well-marked atheroma, though this condition is perhaps more marked in the cerebral arteries than

elsewhere. Heart 15½ ozs. Hypertrophy of left ventricle. Kidneys 8 ozs., capsule thick, adherent; surface finely granular; cortex wasted; colour red; consistence firm.

163. M., 68. Hæmorrhage into left basal ganglia. Heart 18 ozs. Hypertrophy of left ventricle. Arteries, especially the cerebral, in advanced condition of calcareous atheroma. Kidneys 7½ ozs., capsule adherent, surface granular, cortex diminished; consistence flabby; colour mottled; large deposits of urate of soda in joints of hands and feet.

Abscess.—399. F., 16. Encysted abscesses of right frontal and temporo-sphenoidal lobes. Pus in posterior cornu of left ventricle. Cerebro-spinal meningitis. No disease of bone or ears. Two small encysted abscesses of peritoneum in vicinity of spleen. Some carious teeth. Other parts and viscera nil. The abscesses are spheroidal, and are quite delimited by a firm, tough, but not thick capsule. The pus, which is green and viscid, contained streptococci; the chains were short and the cocci small. The wall of the abscess is formed of fibro-granulation tissue. It is about $\frac{1}{16}$ in. thick; not a few large vessels (veins) run through the wall, which has two layers; in the outer the cells are parallel to the circumference, in the inner they are arranged radially.

Meningitis.—113. F., 20. Left hemisphere is covered with a thickish layer of greenish-yellow lymph. This lymph is in the arachnoid space covering the pia and dura-arachnoid. There is, however, some in the subarachnoid space of the left hemisphere; it is limited to the surface, and does not follow the pia into the fissures. The meningitis is almost entirely limited to the vertex and side of the one hemisphere, though at the base and along spinal cord there are collections of turbid yellowish subarachnoid fluid. There is no naked-eye meningitis of the right hemisphere. With the exception of slight chronic tonsilitis the rest of the body, examined most carefully, was perfectly normal. Even the teeth and their sockets were sound. Microscopical examination of pus scraped from off the pia-arachnoid showed cocci, of moderate size, staining well by Gram's method; no markedly special arrangement, though there were a few small chains. After hardening cortex and dura, sections stained with

alkalin methylen blue disclosed large collections of chain cocci, forming twisted skeins. These also stained by Gram's method, but not nearly so well. The sections also show acute endarterites of pia vessels. The intima alone is affected; it is much swollen, and raised into a number of corrugations from hyperplasia of cells; the lining membrane of intima is intact.

Chronic Spinal Meningitis.—390. M., 49. Lateral ventricles greatly dilated from presence of excess of clear watery fluid. Nervous tissue of brain flabby but not otherwise noteworthy. From foramen magnum downwards, dura of cord is greatly thickened, especially as far as cervical enlargement. It is firmly adherent to the bone, so that the cord was removed with difficulty. The inter-meningeal space is obliterated from adhesion of dura to pia. The medulla and cord are much atrophied, and present a riband-like appearance. The central canal is greatly dilated throughout, and the nervous tissue correspondingly atrophied. This condition of syringomyelia stops at the upper part of the cord. On the posterior aspect of the lower half of cord are numerous thick, large, calcareous plates. There is some wasting of the pons. Both sciatic nerves are flabby and wasted. Pericardium adherent. Aneurysmal dilatation and atheroma of the basilac artery. The lower lobes of both lungs are in condition of red hepatization.

Convulsions.—39. 58. 63. Infantile.

Diseases of the Circulatory System.

Valvulites.—355. M., 19. Heart 17½ ozs.; shape, globose; mitral orifice 1¼ inch; flaps adherent, thickened, calcified; auricular surface, rough. Tricuspid 4⅛ inches; flaps thickened, opaque, and continuous. Pulmonary and aortic valves natural in appearance but both rings narrow, being 3⅛ and 2⅛ inches respectively. Considerable hypertrophy of right ventricle, its wall being as thick as left. Right auricle very large, left about normal. Hæmorrhagic infarcts in right lower lobe; turbid fluid in left pleural sac, with collapse of left lower lobe; viscera cardiac.

381. M., 11. Heart with pericardium, which is universally adherent, 20 ozs. Mitral nearly destroyed from ulcerative

endocarditis; is the seat of large coarse vegetations, which have eaten away most of the flaps and have extended upwards into auricle, the greater part of which is similarly affected. Aortic cusps thickened, opaque, and slightly recurved. Left ventricle dilated and hypertrophied. Numerous caseating infarcts in kidneys and spleen. Yellow softening of outer third of right corpus striatum, also of patches of cortex of left occipital and right temporo-sphenoid lobes and of the right insula. In the pia, over against the cortical softenings, the white shrunken occluded vessels are easily seen.

387. M., 6. Heart with pericardium, which is thickened and universally adherent, 10¼ ozs. A few small recent vegetations on mitral; small caseous infarct in right kidney; viscera cardiac.

18. F., 31. Heart 17½ ozs. Mitral flaps adherent, orifice stenosed, just admitting top of forefinger. Left auricular appendix distended with firm granular fibrinous ante-mortem coagulum. Aspheroidal mass the size of a marble, with liquefied centre, projects into auricular cavity; viscera cardiac. Skin of lower extremities in condition of recent erysipelas; peeling; surface raw; weeping; ballac.

47. F., 22. Heart 15 ozs. Mitral ring 3⅛ inches. Aortic 2⅝ inches. Mitral flap sadherent, thickened; complete ring of coarse softish vegetations on mitral and aortic valves. A few vegetations on tricuspid. Left auricle and ventricle dilated and hypertrophied; viscera cardiac.

71. F., 18. Heart 24 ozs. Mitral and tricuspid flaps thickened, and the chordæ much shortened; no recent endocarditis. Mitral ring 5¼ inches. Tricuspid 4½ inches. Aortic 2¼ inches. All the four chambers are dilated and hypertrophied; left most. Though the aorta is narrow, it is in other respects quite normal; viscera cardiac.

76. F., 9. Heart with pericardium, which is universally adherent from presence of recent granular lymph, 13¼ ozs.; mitral flaps thickened; chordæ shortened; orifice = 3·2 inches. Ring of small recent vegetations on mitral. In liver are a good few yellow nodules encapsuled in fibrous sheaths; these vary in size from a small to a large pin's head. A few similar bodies in spleen; none elsewhere. Kidneys R. 5 ozs., L. 1¼ ozs.; both are red and tough, but the left is granular with much atrophied

cortex. Microscopical examination of the yellow nodules in liver showed that they were quiescent, obsolete tubercles. The sections show spheroidal areas bounded by a zone of fibrous tissue, the central contents of which are caseo-cretaceous. In some are giant cells. Outside a few are collections of round, indifferent cells.

78. M., 33. Pericardium thick and universally adherent; adhesions old and firm. Mitral much stenosed; flaps adherent, thickened, and chordæ shortened. Some few recent vegetations on mitral, elsewhere the endocardium is smooth and shiny; some atheroma of aorta; yellow, firm infarcts in kidneys; two large ulcers in internal arytænoid mucosa. Left leg 2 inches shorter than right; capsule of left hip joint much thickened; pus in and around joint; cartilages of joint quite eroded; head of femur much expanded and flattened, resembling a mushroom; neck of femur shortened.

95. F., 45. Heart 17 ozs.; mitral orifice stenosed; flaps thickened and adherent; chordæ shortened. Some ulceration of auricular aspect of valve; left auricle much dilated; wall of left ventricle hypertrophied; viscera cardiac. Colloid cyst of right ovary size of a large orange.

123. M., 24. Heart with pericardium, which is thick and almost universally adherent, 37½ ozs.; aortic cusps thickened and recurved; mitral orifice stenosed, just admits tip of fore-finger; left auricle dilated and hypertrophied; both ventricles much hypertrophied; coarse vegetation size of hemp seed on tricuspid; hæmorrhagic infarcts in lungs; recent lymph covering upper half of left lung; viscera cardiac.

171. M., 14. Pericardium adherent over right heart; adhesions old, elsewhere free. Heart 16 ozs.; mitral flaps thickened and chordæ somewhat shortened; endocardium smooth; left auricle large, wall thick. Subarachnoid space of brain and cord distended with a yellowish-green fluid. The meningitis is most marked on vertex and sides of cerebrum, and on posterior aspect of spinal cord; pia adherent to cortex; recent lymph over left pleura; peritoneal sac contains several pints of greenish-yellow fluid and lymph. Peritoneum is much injected and covered with recent lymph.

394. M., 21. Heart with pericardium, which is thickened and universally adherent, 24 ozs. Between the two adherent

pericardial layers are some flat calcareous plates; ventricles much hypertrophied; aortic cusps thickened and recurved; valve incompetent; mitral stenosed; flaps thickened, adherent; some vegetations on mitral and aortic; kidneys 17 ozs., surface smooth, consistence flabby; cortex large; colour yellowish, but mottled with brighter yellow specks, red spots and lines; pyramids purple. Peritoneal sac contains several pints of turbid fluid, and in the pelvis and about the liver a considerable quantity of greenish-yellow pus. Broncho-pneumonia.

395. M., 20. Heart 24 ozs.; complete rings of recent vegetations on tricuspid, mitral, and aortic; mitral flaps thickened, adherent; orifice stenosed, admits two finger tips; aortic cusps thickened and recurved; ventricles dilated and hypertrophied. Viscera cardiac.

1. F., 33. Heart large, 20 ozs.; considerable dilatation but not much hypertrophy; tricuspid and mitral orifices stenosed, the flaps being thickened and adherent, and the orifices linear; aortic cusps thickened and recurved; valve incompetent; viscera cardiac. The feet exhibit an extreme example of osteo-arthritis and deformity. Both big toes are bent outwards at metatarso-phalangeal joints almost to a right angle. The phlanges of the three middle toes are dislocated upwards at their proximal ends, are much atrophied, while the distal ends of the metatarsal bones project downwards; the skin over the latter is covered with large corns.

9. M., 39. Heart 25 ozs.; much hypertrophy and almost no dilatation. Mitral orifice $3\frac{1}{4}$ inches; flaps thickened, adherent; aortic orifice $2\frac{3}{4}$ inches; cusps thickened, recurved, adherent; firm black calculi impacted in cortex of left kidney which is atrophied. The lungs exhibit numerous patches of lobular pneumonia, chiefly central. Though the hepatized portions are lobular in distribution, they are somewhat croupous in character; they are "mouse" coloured. (Influenza pneumonia).

80. F., 18. Heart 13 ozs.; mitral and aortic orifices stenosed from thickening and adhesion of their cusps; aortic ring = 2·25 inches. Recent vegetations on mitral, aortic, and tricuspid; viscera cardiac. Left leg drawn up, much shortened, inverted; four sinuses about joint, these lead into passages filled with pus. Hip joint quite disorganised. Head of femur and

acetabulum absorbed; femur thin, soft and brittle; much fibrous thickening about joint.

382. M., 40. Heart 21½ ozs.; aortic thickened and ulcerated; rest of endo-cardium normal. Both ventricles hypertrophied and dilated; viscera cardiac.

131. M., 32. Heart 21 ozs.; two cusps to aortic valve; two having become fixed together at some remote period. The cusps are thickened and uneven, but not rough. No stenosis; ventricle dilated, but not much hypertrophied; viscera cardiac.

362. M., 11. Heart 9 ozs.; left ventricle greatly hypertrophied; aortic cusps are thickened, adherent, and the orifice greatly stenosed. At the base of the cusps there is a mass of calcareous deposit, best visible from the ventricular aspect of the valve. This patient fell down dead in the street. The viscera generally are full of blood, but in other respects not noteworthy, except the thymus, which is persistent, weight 1¾ ozs.

Carditis.—50. M., 36. Heart 14 ozs. Endo and pericardia normal; muscle very soft, easily breaking down on pressure; lungs engorged and œdematous. In the mesentery are numerous nodules of calcification, probably the remains of old inflamed glands. Microscopical examination of the heart muscle showed crowds of leucocytes infiltrating the cardiac tissue, though the muscle fibre seems unaffected.

Dilated Heart.—317. M., 45. Heart 27 ozs.; cavities much dilated; some hypertrophy, most marked on right side. No endocarditis or pericarditis; much turbid fluid in right pleural sac; some lymph on visceral pleura. Lung carnified from compression; large hæmorrhagic infarct at right base; margin of infarct wavy, serpiginous, yellow; viscera cardiac.

Adipose Heart.—79. M., 28. Heart 12½ ozs.; much sub-epicardial adipose tissue; in diastole, very flabby, soft; no endocarditis; blood fluid. Other parts and viscera nil. Fell down dead in the street.

Congenital Heart.—323. F., 1. Heart large, globose; both auricles and right ventricle distended with soft black clot; right heart hypertrophied and dilated; left heart small; aorta comes off from right ventricle. On cutting this vessel up it is found

that the lungs are supplied by a branch of aorta given off at site of ductus arteriosus. This latter vessel has a cul de sac running to the base of the heart, the representative of the main pulmonary artery. The right auricle is larger, and is in free communication with left auricle, by means of a widely patent foramen ovale. The left auricle communicates with left ventricle and also with right ventricle, by an aperture at the base of septum. The ends of the fingers and toes are clubbed; the viscera generally are much congested. During life there was cyanosis, but no bruit.

133. F., $1\frac{6}{12}$. Heart large, globose; great hypertrophy of right heart; left auricle small; left ventricle about normal. Pulmonary artery is very narrow, has only two cusps, but there is no thickening or other evidence of inflammation about the valve or artery. The aorta also comes off from right ventricle, it is behind and to the right of the pulmonary. The interventricular septum is defective at the base, just admits tip of forefinger. The foramen ovale is patent but valved. The opening of ductus arteriosus into aorta presents itself as a cup-shaped cavity, about the size of a pin's head, but there is no passage beyond. Ends of fingers and toes clubbed; viscera much congested. Cyanosis was observed from the 4th month; there was a systolic murmur all over thorax, loudest at base.

145. F., 17. Heart 17 ozs., shape globose; hypertrophy of both ventricles; mitral=$3\frac{3}{4}$ inches; tricuspid $4\frac{1}{4}$ inches; pulmonary=3 inches, and aortic $2\frac{3}{4}$ inches. The ventricles are in communication by an aperture at the base of septum, which just admits tip of finger. The aortic ring lies just above the septum, and is thus in communication with both ventricles. The aortic cusps are thickened and somewhat recurved and that which lies over the septum is longer than the other two, is much sacculated, and falls back into right ventricle, so that it touches against the posterior aspect of the tricuspid. All these cusps are covered with coarse thick vegetations, and two are completely ulcerated through. On the pulmonary and tricuspid are two projections the size of small peas; both of these are aneurysmal ulcerations. The tricuspid flaps are short, thick, and rigid, and the chordæ are shortened; the mitral seems fairly normal. The pulmonary artery and its branches are of natural size, though the passage from the ventricle to the pulmonary artery seems

impeded by large muscles which cross the channel towards it. The ductus arteriosus is patent and admits the passage of a probe. A recent hæmorrhagic infarct in each lung; the left lower lobe is very small owing to the pressure of the heart on its root; there is no fluid in left pleural sac. The other viscera are not noteworthy.

168. F., 55. Heart 25 ozs., shape globose; right side much dilated and hypertrophied; no endocarditis. The foramen ovale is patent, the aperture being quite as large as a crown piece. Pulmonary ring=5 inches; aortic=2¾ inches; mitral=4 inches; tricuspid=5¾ inches. There is no aortitis; viscera cardiac.

Aneurysm.—360. M., 44. Aorta atheromatous throughout; four aneurysms in first part of arch, one, the size of Tangerine orange, abuts against left auricle; the other three are each not larger than a hazel nut. These all lie in line, and their apertures are circular and smooth-edged; one descends in front of right ventricle, burrowing into its muscle. Heart is large; pericardium adherent in front; at base there is some recent suppurative pericarditis; aortic valve seems normal; mitral is a little thickened and its chordæ shortened. There is distinct general arteritis, but it is only extensive in aortic arch.

22. M., 50. Heart large, cavities dilated and ventricles hypertrophied, weight with aortic arch 29 ozs.; aortic cusps thickened, ring dilated; the aorta is throughout atheromatous and on posterior aspect of first part of arch is an aneurysm about the size of an egg. The wall of aorta (aneurysm) is here very thin, and has pressed on right pulmonary artery which at its commencement is quite obliterated, the opposite walls being agglutinated. Immediately above this the vessel and its first bifurcations are filled with soft, granular, fibrinous clot; aortic valve incompetent; pericardium thick, opaque, granular. The whole of right lung is consolidated, is quite black, extremely friable and bestudded with caseating infarcts; viscera cardiac; well marked osteoarthritis, and some urate of soda in big-toe joints.

35. M., 27. Just below origin of innominate is a spheroidal aneurysm about size of hen's egg. Its wall is not thicker than a piece of stout writing paper; it is bluish in colour and its internal surface is rough and uneven. The arch exhibits well-

marked syphilitic aortitis, it starts just above valve, and its edge is thickish, raised, and somewhat crenated; beyond arch aorta and branches seem normal. The aneurysm reaches almost to the aortic valve, and it is adherent to the left auricle, right pulmonary artery and left bronchus, but none of these structures seem to have suffered from pressure. The aortic valve is incompetent, ring=3¼ inches, and the left ventricle is hypertrophied and dilated; viscera cardiac.

45. M., 37. Aneurysm size of fœtal head, rupturing into right pleural sac. The aperture from aorta is oval on its posterior aspect, and is 2 inches long. It is post-diaphragmatic, spreading to the right. It has eroded the 10th, 11th, 12th dorsal, and first lumbar vertebræ, and the rupture into pleural sac, is ¾ inch long. The aortic arch is atheromatous, and the left ventricle hypertrophied; there is no endocarditis. The rest of the viscera are not noteworthy.

124. M., 52. Aneurysm of descending arch size of a small Tangerine orange. This has given way posteriorly, thus forming a second aneurysm, which, eroding the ribs, has appeared in the back as a large fluctuating tumour filled partly with brown, tough, laminated clot, and soft black clot. The direction taken was close to the spine, the left side of the bodies of 5th, 6th, and 7th dorsal vertebræ being eroded, and the inner portions of the 5th, 6th, and 7th left ribs being quite absorbed. The aorta is atheromatous throughout. The heart is of moderate size and the valves are normal. The left lung is firmly adherent to the aneurysm; right kidney 4¾ ozs.; left 1¾ ozs.; capsules adherent, surface uneven and granular; left much atrophied.

Thrombosis.—338. F., 57. The last 1½ inches of abdominal aorta and its branches to pelvis and lower extremities are distended with firm decolourized clot; no clot in veins; commencing gangrene of both lower extremities. There is some calcareous degeneration of the lower part of aorta and the medium-sized arteries in places, but microscopical examination of the tibial arteries with clot did not show any arteritis or degeneration, though there was hypertrophy of the muscular coat. Patient was admitted for cataract, and iridectomy performed. Looks older than age.

Pericarditis.—92. M., 38. Purulent fluid in pericardial sac; pericardial surface covered with recent lymph; turbid purulent fluid in both pleural sacs; both lower lobes in condition of red hepatization; other viscera febrile.

Diseases of the Respiratory System.

Bronchitis. — M., $\frac{2}{12}$. Lungs large; noncrepitant but not solidified, the condition being that of bronchitis passing to broncho-pneumonia. Both lungs are of a brick-red hue, and bespotted all over with petechiæ; bronchial mucosa covered with thin layer of sanious mucus, but there is no suppurative secretion; right heart empty, flaccid, normal; larynx and fauces nil.

Broncho-pneumonia.—397. F., 9 months. Large quantity of bright, yellow, firm, shaggy lymph in both pleural sacs. Lungs fleshy, reddish; lobulation well marked; suppurative bronchitis; Meyer's diverticulum 19 inches from ileocæcal valve; well-marked rickets.

10. F., 1. In both lungs are large areas of broncho-pneumonic consolidation; that in right lung involving about one-third; in the left, about one-fourth of the pulmonary tissue; right pleura smooth and shiny. Thin layer of recent lymph covers inflamed portion of left; well-marked rickets.

12. F., 2 months. Ordinary broncho-pneumonia of both lungs; two ureters to left kidney.

16. F., 6. Broncho-pneumonia and collapse of pulmonary tissue. Brain 43 ozs.; calvarium dry, white; convolutions flattened; pia extremely injected; cortex everywhere quite pink. At a few spots at base and sides the vessels of the pia are surrounded by yellow lymph, and in one or two others the hyperæmia is so intense that it has led to minute cortical extravasations; viscera febrile.

157. F., 27. Mucosa of trachea and bronchi, covered with thick, yellowish-green, somewhat viscid fluid; the smaller bronchi are quite filled; pleura free, smooth, shiny; both lungs large, heavy, purple, much engorged and œdematous. They exhibit well-marked broncho-pneumonia. Spleen 7 ozs., dark, soft, friable; kidneys 10¼ ozs., surface smooth; cortex of a pale drab hue, not swollen; pyramids purple (febrile); uterus well

contracted and in condition of comparatively recent delivery, 6½ inches long; wall of fundus 1 inch thick; mucosa of cervix swollen and discoloured; placental site on posterior aspect to which is adherent a mass of firm, black, adherent clot. A few of the subjacent vessels are clotted up but only superficially; Fallopian tubes and ovaries nil. Microscopical examination of kidneys showed slight evidence of nephritis. A case of puerperal eclampsia.

172. M., $1\frac{4}{12}$. In right pleural sac is a large quantity of greenish-yellow lymph and turbid fluid; the pleural surface is everywhere covered with a thick layer of lymph. Nearly the whole of this lung is consolidated; it is fleshy, pallid, and the lobulation is well marked. In many places the centre of the lobule is yellowish; left pleura smooth and shiny; the lung is consolidated.

359. F., 7 months. Right upper lobe and most of middle lobe consolidated, of a reddish colour; of fleshy consistence, granular on section; lobulation well seen, and the consolidation is homogeneous; whole of right pleura is covered with yellow lymph; mediastinal glands large, red, soft. Liver 13 ozs., much congested, but structure normal; is quite dislocated from its usual position; lies along right flank, the right lobe resting on pelvis, and the left lobe in position of the right; the upper surface is indented by the pelvic brim; the suspensory ligament is lax and thin. Suppurative otitis.

365. F., 4 weeks. Broncho-pneumonic consolidation of both lungs; considerable œdema of both lower extremities, labia and buttocks; kidneys congested; pyramids full of cayenne-red crystals, which, under microscope, are spheroidal, with radial striation, the centre and edges being dark; size variable; colour yellow, probably urate of soda; no ossific centre at lower end of femur. Brought in dead.

Also 324, 373, 396, 400, 42, 73, 77, 88, 112, 122, 162, 175, cases of ordinary broncho-pneumonia presenting nothing of interest.

Pneumonia—318. M., 78. Almost the whole of right lung is hepatized, is of a plum-colour, and extremely soft and friable; left lower lobe in transition stage between engorgement and red hepatization; some yellow lymph over left lower lobe, else-

where the pleural surfaces are adherent; flaps of mitral are thickened and opaque and the chordæ shortened, but the endocardium is quite smooth; kidneys granular with numerous cysts; right testicle atrophied.

331. M., 46. Grey hepatization of right upper and middle lobes, with gangrenous area 2 inches in diameter. Liver 76 ozs., fatty.

333. F., 60. Right pleural sac contains a large quantity of yellow lymph, and the lower lobe is hepatized, transition stage from red to grey; left lower lobe is firm, fleshy, and red; no recent pleuritis. Numerous old adhesions over left lung, and the posterior portion of right pleura is extremely thick from deposit of white fibrous tissue. Heart 11 ozs.; mitral flaps thickened and chordæ shortened. The pylorus lies ½ inch to the left of umbilicus, and at the same level. The third part of duodenum is fixed down over body of 5th lumbar vertebra and touches the 1st sacral. The stomach is long and narrow, the pyloric end being more sacculated than the cardiac. A few cysts in cortex of kidneys. Uterus ill-developed, the cervical portion being larger than the fundus; the ovaries and fallopian fimbriæ are rudimentary. The thyroid is considerably enlarged from simple hypertrophy; no degeneration of any kind.

340. M., 55. Grey hepatization of left lower lobe.

350. M., 42. Right pleura enormously thick and universally adherent; red hepatization of right upper lobe. Cadaveric softening of cardiac end of stomach; spleen dark purple, quite diffluent; kidneys 14½ ozs., very flabby, smooth, soft, of a pinkish-yellow colour mottled with red from a few congested vessels; liver 77 ozs., fatty.

370. M., 46. Grey hepatization of left lower lobe; much lymph and turbid fluid in pleural sac; several (3) lumps of similar consolidation in right lower lobe; pleura smooth and shiny.

393. M., 40. Grey hepatization of right upper lobe; much lymph in pleural sac; several isolated masses of grey hepatization in left lower lobe; some lymph on pleura. Heart 13¾ ozs.; left ventricle hypertrophied; kidneys 14 ozs., pale red, flabby, smooth. Brain 48 ozs.; symmetrical patches of yellow cortical softening, circular, about diameter of shilling at centre of middle and lower temporo-sphenoidal lobes; also small patch at lowest

and posterior part of 3rd right frontal convolution. The arteries of the body seem fairly normal. Deposit of urate of soda in joints of toes and dorsum of foot; joints above nil.

4. M., 47. Lymph and turbid fluid in right pleural sac; lower lobe collapsed, middle and upper lobes in condition of grey hepatization; mediastinal glands infiltrated with soft white deposit, which on microscopical examination was found to be lympho-sarcoma. This gland, the size of a Tangerine orange, lies just below the bifurcation of trachea, and is just beginning to invade the lung. Heart 12 ozs.; mitral flaps adherent, thickened with some calcareous deposit; circumference=$3\frac{1}{2}$ inches; deposits of urate of soda in joints of both feet.

7. M., 26. Grey hepatization of right lung; liver 78, fatty; kidneys, R. $8\frac{1}{4}$ ozs., L. $8\frac{3}{4}$; both are soft, pallid, and the cortices injected. Well-marked hydronephrosis of left, the pelvis and calices are greatly dilated and the renal tissue correspondingly encroached on: no obvious cause.

8. F., 43. Grey hepatization of right middle and part of lower lobe; liver 98 ozs., fatty; well-marked "lacing" furrow. Uterus large (subinvolution); mucosa covered with sanious fluid; intramural myoma; chronic pelvic peritonitis which has blocked fimbriated end of tube producing hydrosalpinx; ovaries cystic.

28. M., 35. Grey hepatization of right lower lobe, much greenish purulent fluid in pleural sac. Some pigmented fibroid tubercles with central encapsuled caseations at right apex. Osteo-arthritis of both big toe joints, the right being filled with pus. Right otitis media.

31. M., 29. Grey hepatization of right lower lobe; red hepatization of left upper lobe; liver 79 ozs., fatty.

34. F., 60. Grey hepatization of right upper lobe; liver 69 ozs., upper surface marked by 7 deep antero-posterior fissures, the grooves in left lobe being much deeper than those in right; spleen 4 ozs., almost diffluent. Internal hernia; a mass of intestinal coils (jejunum) the size of the fœtal head, or larger, lies in right hypochondriac region. It has made its way from the left side behind the stomach passing between the lesser curvature and the duodenum on the lower side and having the pancreas above. It is covered by a single free layer of peritoneum and its neck is to some extent constricted by the thicker ring of

peritoneum through which it passes. This ring is from 2 to 2½ inches in diameter, and though taut does not appear to have injured or nipped the gut at all. The duodenum is quite loose and the main mesenteric attachment, that passing to spine, is thick and taut. The omentum is bound down to left flank and right fallopian tube; this last structure is dilated to the size of a turkey's egg, the adherent ovary being flattened out and atrophied. The left ovary is rudimentary and cystic. Uterus small, walls thin, cavity much dilated; os pinhole.

36. M., 45. Grey hepatization of right upper and middle lobes; lymph on both pleuræ; pericardium covered with recent lymph.

62. M., 34. Grey hepatization of right lower lobe; liver 83 ozs., fatty.

70. M., 61. Grey hepatization of left lower lobe; fibroid pigmented tubercles in both lungs.

83. M., 62. Grey hepatization with gangrene of right lower lobe; much purulent fluid in pericardial sac, pericardium covered with lymph; liver 62 ozs., cirrhotic; kidneys 15 ozs., firm, red, surface finely granular; numerous minute cysts in cortex; punched out granulating sores on penis with discharge from urethra.

94. M., 44. Grey hepatization of left lower lobe; lymph in both pleural sacs.

111. M., 48. Grey hepatization of left lower lobe.

139. M., 65. Grey hepatization of right upper and middle lobes; black pigmented mass of fibrous tissue in centre of left upper lobe. Several isolated masses of grey hepatization scattered about left lung. Heart 9 ozs.; two aortic cusps adherent, bases of cusps calcified. Edge of mitral thickened and chordæ shortened; no hypertrophy or dilatation; large ganglion on right flexor carpi radialis.

Chronic interstitial pneumonia.—332. M., 5$\frac{10}{12}$. Left pleura greatly thickened and universally adherent; lung indurated throughout, but little if at all contracted; no ærating tissue left; bronchi enormously thickened and dilated, so that a section of the lung looks as if it were riddled with cavities; the indurated pulmonary tissue is greenish mottled with black specks. In the left bronchus is a foreign body (piece of a nut) which does not quite occlude the lumen of the tube; the wall of bronchus is pitted and irregular from

ulceration of the mucosa. Three patches of hæmorrhage into laryngeal mucosa. The rest of the viscera are perfectly normal.

Phthisis.—327. M., 44. Much puckering from fibrosis of both lungs; bronchi thickened and dilated; numerous small cavities; fibroid pigmented tubercules; both pleuræ are densely thick and universally adherent. Both optic nerves are gray, flat, and wasted, the sheath is much thickened. Gray degeneration of posterior column of cord. Microscopical examination of spinal cord shows that the pia is much thickened on the posterior aspect of the dorsal region; that there is well-marked degeneration of the cord in posterior columns of the dorsal region; that the lumbar region is but little affected, and in the cervical the degeneration is confined to the part immediately adjacent to the postero-median fissure. The posterior rootlets in dorsal region are much fibrosed. In sections of sciatic nerve are 41 bundles of nerves; some of these are quite normal, some atrophied.

335. F., 27. Pleuræ thick, adherent. Much fibrosis with large cavities in upper lobes; mass, size of walnut, of tubercular pneumonia in left lower lobe, is breaking up into cavities. Death from hæmoptysis, the cavities and air passages are choked with blood. Aorta and pulmonary artery very narrow, aorta is between 2 and 2⅛ inches in circumference, pulmonary artery just 2⅛ inches at commencement.

342. M., 19. Pleuræ thick and adherent over upper halves. Upper lobes indurated from pigmented fibrosis; bronchi dilated, walls thickened; vomicæ; in lower lobes masses of pigmented fibroid tubercles; laryngeal mucosa much ulcerated.

343. M., 22. Chronic pleuritis; lungs indurated from presence of pigmented fibrous tissue and masses of pigmented fibroid tubercles; bronchi dilated; numerous small collections of encapsuled cretaceous matter; no vomicæ; mucosa of palate, fauces, epiglottis and of vocal cords thickened and ulcerated. A few tubercles and small tubercular ulcerations in small intestine; numerous large ulcerations in large intestine; a few tubercles in liver; kidneys 10 ozs., almost white, surface uneven, cortex wasted, consistence firm; well-marked amyloid reaction with iodine; no reaction with spleen or liver. Morbus coxæ, left hip joint disorganised; head of femur and acetabulum worn away.

Anchylosis and deposit of new bone around false joint; sinuses around hip.

358. M., 27. Left chronic pleuritis; left upper lobe represented by cavity with thick fibrous walls; large cavity at apex of left lower lobe; soft caseous tubercles in left lower lobe, and right lung; spleen 8½ ozs., malpighians amyloid; tubercular ulceration of vocal cords; two fistulæ ani.

392. M., 40. Pleuræ much thickened and adherent except at right base where sac remains, filled with soft yellow shaggy lymph; lungs are large, bulging, emphysematous, puckered and much pigmented; indurated from presence of fibrous tissue and pigmented fibroid tubercles; a few small vomicæ; tubercular ulcers of intestine; spleen 8 ozs., malpighians amyloid; kidneys 15¾ ozs., surface smooth, cortex not enlarged; consistence softish, pallid, but vessels well marked; bladder hypertrophied, two sacculations in trigon; no obstruction.

401. M., 19. Right pleural surfaces universally adherent; left free; both lungs trilobate; large, much pigmented. Bestudded all over with fibrocaseous pigmented tubercles, discrete and in aggregations; most frequent in right upper and both middle lobes where they are closely packed together. One cavity, size of Spanish nut, at posterior part of base of right upper lobe; ulceration of laryngeal mucosa.

13. F., 28. Chronic pleuritis with adhesion over upper halves of lungs, lower half of right pleura covered with thin layer of soft, white, granular lymph; lungs emphysematous; much puckered; heart quite overlapped: both are bestudded from apex to base with fibro caseous tubercles which are most frequent and compact in the left lung; in both upper lobes are vomicæ. Hypertrophy of both cardiac ventricles. A few tubercular ulcerations of intestine; punched out ulcer of larynx on left side of arytænoid region.

52. M., 48. Chronic pleuritis; lungs emphysematous; much puckered, œdematous; induration of left upper lobe from presence of fibroid tissue and pigmented fibroid tubercles; vomicæ and caseations. Caseations also in right upper and left lower lobe. Heart 14 ozs., indurated, much soft black clot in cavities; muscle pale and extremely friable. Microscopical examination of heart muscle; transverse section of left ventricle, ½ inch thick, shows that the muscle fibres contain numerous

yellow crystalline granules, small, of irregular shape and of variable size, massed chiefly about the nucleus; striation good; no reaction with 1 per cent. osmic acid; transverse section of right ventricle $\frac{1}{8}$ to $\frac{1}{6}$ inch, yellow granules also; striation not so good; tendency of fibrillæ to split up longitudinally. Many fibres show collections of oval or roundish bodies resembling drops of pale fluid (? altered segments). No staining, with one per cent. osmic acid after quite 2 hours' immersion, though the adipose tissue is black. After 48 hours' immersion the globules have become brownish but not more than the rest of the tissue.

56. M., 73. Left pleura much thickened and adherent. Whole of left lung and the right upper lobe are consolidated partly from deposit of pigmented fibroid tubercles and partly from tuberculous caseating pneumonia. Several small vomicæ at left apex and at base, the latter as large as closed fist. Kidneys 13 ozs., numerous cysts in cortex. Calcareous atheroma of aorta. Left lateral curvature: large bosses of bone project from right side of bodies of dorsal vertebræ.

57. M., 49. Right chronic pleuritis. Both lungs bestudded with small and large masses of pigmented, centrally caseating fibroid tubercles. They are densely aggregated in right lung, more scattered in left. In right upper lobe is cavity size of Tangerine orange filled with soft black clot. Sharp punched out ulcer exposing cartilage at base of left vocal cord. Head bent back, neck stiff, anterior curve of cervical vertebræ; 5th, 6th, and 7th cervical vertebræ united in front by flat layer of osseous deposit.

87. M., 41. Small masses of pigmented fibroid tubercle on both upper lobes, that on right side just beginning to break down and suppurate; emphysema; bronchitis; pia arachnoid thick, opaque, especially over vertex. Left vesicula seminalis much dilated and distended with a thin milky fluid.

102. M., 22. Both lungs bestudded all over with miliary tubercles and nodules of tubercular pneumonia; at both apices is a thin-walled vomica, size of walnut, filled with pus. Well marked hypertrophous emphysema. Right chronic pleuritis with universal adhesion.

140. F., 41. Chronic pleuritis, the right being much thickened and universally adherent. Right lung non-aerating. The upper lobe is transformed into a series of cavities, and the lower lobes

are the seat of masses of fibroid tubercles and areas of tubercular pneumonia. In the left are masses of fibroid tubercles and some small vomicæ. The lungs are very little pigmented. Tubercular ulcers of large and small intestines; brain 45 ozs.; on arachnoid surface of dura is a thin layer of soft yellowish gelatinous deposit; nervous tissue nil. Mass of white fibrous tissue in presacral region of pelvis, but not interfering with gut or reproductive organs. Uterus small; os round, small; ovaries small, shrunken.

154. F., 28. Pleuræ universally adherent and much thickened over the upper lobes. Lungs large, heavy, pigmented; in both are numerous cavities filled with greenish-yellow pus; masses of pigmented fibroid tubercles and soft yellow tubercles, some of which are centrally disintegrating; almost the whole of right lung is non-aerating. Uterus small; os pinhole; ovaries shrivelled, indurated.

Cancer of Lung.—72. F., 39. Left lung contracted, indurated, adherent; at least two-thirds are infiltrated with a firm white growth; the upper third is free. Mediastinal and prevertebral abdominal glands are white, soft, and enlarged. Behind the stomach is a mass of cancerous glands the size of the fœtal head; within this mass lies the pancreas, the anterior half of which is infiltrated; liver 125 ozs., contains large spheroidal cancerous deposits most of which lie towards the upper surface. Presumably the primary site of the cancer was in the lung itself, and probably of peribronchial origin, as the induration and shrinkage of the lung indicate.

Pleuritis.—128. M., 9. In both pleural sacs is a large quantity of turbid fluid, and much yellow lymph chiefly on the visceral surfaces; the right lower lobe is not larger than a walnut; it is fleshy, tough, and the bronchi are much dilated; the lower third of the left upper lobe is in a similar condition. Rest of lungs in condition of hypertrophy, are less crepitant than normal, but there is no evidence of pneumonia. The pleuræ generally are thicker than normal; bronchitis; mucosa of epiglottis and left arytænoid region are much swollen from a solid œdema. The pericardial sac contains 1 to 2 ounces of turbid fluid and some little lymph. The peritoneal sac contains

a large quantity of firm yellow lymph which mats the intestinal coils together; no hyperæmia of peritoneum; no displacement and no lesion of gastro-intestinal tract; abdominal lymphatic glands are large, soft, hyperæmic. Testicles small, lie at lower end of inguinal canal. Tonsils large, indurated; small abscesses in both; right middle ear filled purulent lymph; slight general jaundice. Some half-dozen herpetic sores on upper lip. Cover glass preparations of lymph from pleura stained by Gram's method, showed cocci in chains.

Empyema.—84. M., 39. Left thorax flat and contracted; surgical opening into thorax, 6 inches long by 2 inches broad, stretches from 2nd left interspace in front to 9th left interspace in post axillary line; the free ends of the resected ribs are thickened and covered with coarse granulations. The lung lies quite collapsed in upper part of costo-vertebral groove, it is firm and at the same time spongy; the left pleura is greatly thickened, and is covered with a layer of pus; it is an extensive pyogenic membrane; right lung is hypertrophied; it contains numerous small masses of fibroid tubercle; and in the centre of the upper lobe is a cavity about the size of a Spanish nut. Liver, spleen, and kidneys amyloid.

174. F., 4½. Resection of part of 7th left rib in line of scapular angle; left pleural surfaces adherent by layers of yellow partially organised lymph; two small empyema cavities, one at side in communication with surgical wound, one shut off between lung and diaphragm; very little purulent fluid in either; left lung fairly crepitant; right chronic pleuritis; right middle lobe is consolidated and fleshy (broncho-pneumonia). Pericardial sac contains some turbid sanious fluid; epicardium of a dark purple hue from hyperæmia, is covered with a thin layer of recent lymph. Extensive suppurative cerebro-spinal lepto-meningitis; the pus is greenish-yellow; deposit of greenish-yellow lymph on arachnoid surface of dura in anterior fossæ.

Chronic Pleuritis.—55. M., 52. Both pleuræ are greatly thickened, especially at their lower halves; the right is firmly and universally adherent; at its lower part the centre is occupied by a caseous curdy mass, the remains of a former pleurisy; the left pleura is quite free; the sac contains a large

quantity of sanious fluid, and its internal aspect is rough from the deposit of blood-stained lymph. Microscopical examination of pleura shows a fibrosis enclosing areas of caseation; a few large giant cells are found at intervals; there are none of the usual histological appearances characteristic of tubercle, though it is possible that the chronic inflammatory process may have had a tubercular origin. The left lung lies collapsed in the costo-vertebral groove, and at its apex is an encapsuled caseation the size of a pea. The right lung is large, and contains not a few fibroid pigmented tubercles. Chronic and recent peritonitis. The mesentery and omentum, which are much thickened, are studded over with minute bodies having the appearance of tubercles; there are no enlarged lymphatic glands. Kidneys 12 ozs.; numerous miliary tubercles in cortex.

Cancer of Pleura.—348. F., 46. Right pleura much thickened, and in the sac 2—3 pints of brownish-red turbid fluid, and much brownish-yellow thin soft clot; internal surface rough and ragged-looking from deposit of clot, and dark red from blood-staining and hyperæmia; the lung, spheroidal in shape, lies in upper half of costo-vertebral groove; it is about the size of a large orange, is soft, fleshy, and much pigmented; it contains a white firm deposit about the size of an almond, which is in connexion with the visceral pleura in front. The parietal pleura is everywhere greatly thickened, especially at apex, along costo-vertebral groove and over diaphragm; in some places it is an inch thick; it is quite white, very tough, and resembles dense fibrous tissue; right half of diaphragm is infiltrated by the growth, and this appears on the peritoneal surface as uneven prominences, either continuous with the pleuro-diaphragmatic infiltration or as flat isolated deposits; there is a similar infiltration of liver capsule on the upper surface of the right lobe; it is about equal in area to a crown-piece; small secondary deposits over peritoneum and left pleura; a few mediastinal glands are infiltrated. Microscopical examination of pleura showed fibrous tissue tunneled up by channels lined by epithelioid cells. In places the cells are in single column; in others the alveoli are lined by a double layer of cuboidal epethelium. The internal surface is covered with organising blood clot.

Diseases of the Digestive System.

Tonsillitis.—120. F., 24. Chronic tonsillitis; faucial arch much swollen. Left tonsil size of walnut, with central abscess pointing posteriorly in pharynx. Soft tissues of left pharyngeal and cervical region somewhat swollen; glands much enlarged. Mucosa of aryepiglottic ring and that inside of larynx as far down as false cords is in condition of extreme œdema. True cords normal. Lungs in condition of acute emphysema, mottled with not a few petechiæ. Kidneys 11 ozs., capsules thick and very adherent, but no wasting of cortex. Uterus and ovaries normal in size and position. Leucorrhœal discharge from os, which is surrounded by a red zone where the mucosa is superficially ulcerated and the surface red from hyperæmia. Uterine mucosa swollen and bathed in red mucoid discharge. Quite recent corpus luteum in left ovary. Calcareous stellate scar at junction of right ovary with broad ligament.

Ulcer of Duodenum.—14. M., 55. Two sharp punched-out ulcers with indurated floors and edges in first part of duodenum; that in front is size of a florin, and its floor is fixed to the under surface of liver; the adhesions have recently given way for about half its circumference. The posterior ulcer is about the size of a shilling, and its floor lies on the head of the pancreas. The mucosa of stomach is in condition of moderate gastritis. There are no enlarged lymphatic glands. The peritoneum is in condition of acute inflammation, and the sac contains much purulent fluid. Kidneys 9 ozs.; surface granular in places; consistence flabby; colour pale red. All the joints of the four extremities, except hip and shoulder joints, contain copious deposits of urate of soda.

Intussusception.—91. F., 12. Intussusception of jejunum about 11 inches long; began 4 feet from end of duodenum, the mass found lying in umbilico—left iliac region. Apex of intussusception mass gangrenous.

Diarrhœa.—344. 51, 60; 119 cases of infantile diarrhœa and marasmus.

Cancer of Stomach.—371. M., 39. Circular hard cancerous

ulcer with depressed centre and raised indurated margin. It is about the size of a florin, on the lesser curvature close to pylorus, the orifice of which is much obstructed. There are numerous spheroidal hard deposits in liver. The prevertebral glands are of enormous size from cancerous infiltration, and their mass presses on the vena cava, which, together with all its branches, is plugged with firm decolourized clot from about the level of the cœliac axis. Chronic pleuritis; hæmorrhagic infarct of lung. Thyroid large, colloid. Deep jaundice, but no obstruction to principal bile ducts.

85. M., 48. Stomach very small. On lesser curvature is cancerous ulcer with indurated, excavated floor, and swollen, raised margin. It measures 3 by 4 inches. Its base is continuous, with a thick mass of infiltrated peritoneal and subperitoneal tissue. Much soft yellow lymph and turbid fluid in peritoneal sac. General cancerous infiltration of peritoneum, and chronic peritoneal adhesions. Large quantity of turbid yellow fluid in both pleural sacs. Lungs much puckered. Large deposits of pigmented fibroid tubercle in right upper and lower lobes and in left upper lobe.

158. F., 44. Stomach long and contracted, pyloric portion feels dense and hard; raised firm cancerous growth infiltrates the pyloric mucosa, but not quite reaching the ring, which is unaffected. The cancerous surface is uneven and villoid in appearance. It is 2½ to 3 inches in length, and completely encircles the pyloric portion of stomach. The subjacent muscular tissue is greatly hypertrophied. From its translucent shiny appearance it is colloid in nature. There are no secondary deposits anywhere. About the centre of the cancer is a small ulcer which leads by a fistulous passage to a collection of pus lying between the peritoneal layers at the cardiac end of the stomach. Chronic peritonitis; adhesions old and thin.

170. M., 51. Pyloric portion of stomach is infiltrated with colloid carcinoma, which forms a firm white glistening mass about ¾ inch thick. It completely encircles the pylorus as far as the ring, and infiltrates all the coats of the stomach, appearing on the peritoneal aspect as flat, warty prominences. It has spread, by continuity, along the peritoneum, which is infiltrated chiefly about the liver. There are no other secondary deposits. The stomach contains about two pints of half-digested food.

On the lesser curvature quite close to œsophagus is a slough of the gastric walls. It is circular, about size of a florin, its edges are sharp but thin; the subjacent subperitoneal tissue is blackish green in colour, soft, and boggy. This, I take it, is an instance of rupture of the stomach from over distension with subsequent cadaveric softening. The peritoneal sac contains several pints of purulent fluid; the peritoneum is much injected, and covered with a thin layer of recent lymph.

Cancer of Intestine.—388. M., 21. Lying between rectum, bladder, and right side of pelvis, is a large fungating, sloughing mass of cancerous tissue. This mass communicates by a fistulous aperture with the rectum. About 4—5 inches from ileo-cæcal valve is a cancerous stricture of the ileum. It is indurated, nodulated, ulcerated, and has sloughed into the pelvic cellular tissue. The stricture just admits tip of forefinger. The vesical mucosa is of a dark purple hue; the urine is mixed with fæces. At the top of the bladder is a round ulcerated aperture which places it in communication with the gut at the stricture. The prevertebral abdominal glands are much enlarged, white, hard, and glistening on section; secondary deposits in liver, kidneys, and in heart; pancreas much wasted; mass of pigmented fibroid tubercle at apex of right lung. Microscopical examination of liver showed tubules or alveoli lined by a bastard columnar epithelium. The tendency is to form elongated acini, some of which are closed, while others are distended by a secretion of colloid nature. Examination of abdominal lymphatic glands showed colloid degeneration.

53. M., 25. Cancerous infiltration of gut at recto-sigmoid junction; wall of intestine infiltrated for distance of 2 inches; it is about 1 inch thick; its internal surface is considerably ulcerated; the new growth has the shiny, glue-like look of colloid cancer; the peritoneum, except that covering stomach, small intestine, and colon, is everywhere much thickened from cancerous deposit; the sac contains a large quantity of ascitic fluid; no other secondary deposits. Heart 13 ozs.; hypertrophy of left ventricle. Kidneys, together, 4½ ozs.; capsules adherent; surface granular; cortex much wasted; consistence flabby; colour pinkish, mottled with many yellow and whitish striæ and areæ. Brain 53 ozs.; dura adherent; convolutions flattened, more on

right side; surface of a pale drab colour. A soft black clot about size of a walnut lies outside right basal ganglia, and in the middle of an area of softening about as large as a turkey's egg. The tissue involved is the outer part of the optic thalamus, and the white matter outside the ganglia, *i.e.*, is chiefly of the temporo-sphenoidal lobe; the destruction has proceeded outwards as far as cortex of temporo-sphenoidal lobe; ventricle not affected; the arteries at base seem normal. There is some induration of the apices of the lungs due to presence of pigmented fibroid tubercles.

100. F., 25. Cancerous infiltration of ileum 3 feet from valve; perforation of gut; acute peritonitis; cancerous deposits in abdominal lymphatic glands and liver.

Abscess of liver.—32. M., 31. Liver, with pancreas and piece of duodenum = 106 ozs.; external aspect presents nothing abnormal; on vertical section of liver, which is of a brownish-red hue and of subnormal consistence, it is found that the central and lower half of the organ is the seat of a large number of closely-packed abscesses, the pus of which is thick, green, and slimy. On evacuating the pus the liver presents a honey-combed appearance. In places the walls of the abscess cavities are thick, tough, fibrous, and smooth. In others they are soft and ragged. Cover glass preparations stained with alkalin methylen blue disclosed numerous collections of very delicate leptothrix-like filaments, but no other organisms were detected. Spleen 26 ozs.; caseating infarct size of pea; in other respects, excepting its size, presents nothing noteworthy. Pancreas large and tough, not indurated. Hydrothorax; pleuræ smooth, shiny, free; almost the whole of both lungs are pneumonic; the consolidated portions are mouse-coloured, of homogeneous consistence and somewhat friable. Heart 17 ozs.; hypertrophy, with dilatation of left ventricle; mitral flaps thickened, adherent, and orifice stenosed; just admits tip of forefinger; aortic cusps thickened, calcareous, recurved, adherent; orifice = 2·8 inches; aorta and large arteries normal; left auricle dilated and hypertrophied.

Cirrhosis.—380. M., 43. Liver 73 ozs.; typical example of cirrhosis. Spleen 31 ozs.; capsule thick; consistence about normal; colour purple. Kidneys 25 ozs.; not remarkable except

for size. Heart 22½ ozs.; great hypertrophy of both ventricles; body extremely adipose, very dropsical; weight about 25 stones.

93. F., 47. Liver 84 ozs.; well-marked cirrhosis. Spleen 26½ ozs.; capsule thick; colour reddish; consistence soft. Kidneys 11 ozs.; capsules adherent; cortices atrophied; numerous fibro-myomata in uterus.

99. M., 39. Liver 112 ozs.; colour dark olive green; well-marked cirrhosis. Gall bladder large, distended, with dark brown bile and numerous small black biliary calculi; common bile and hepatic ducts greatly distended and full of bile and small calculi. Spleen 20 ozs., soft; some patches of fibroid tubercles and calcareous nodules in lungs.

106. M., 61. Liver 38 ozs.; well-marked example of cirrhosis. Spleen 14 ozs.; capsule thick; substance flabby, beefy; chronic peritonitis.

126. M., 38. Liver 60 ozs.; well-marked example of cirrhosis. Spleen 24 ozs.; flabby, red; œsophageal veins varicose; cadaveric softening of cardiac end of stomach.

69. M., 38. Liver 64 ozs.; a typical example of cirrhosis. Gall bladder small, empty. Spleen 19 ozs.; flabby, beefy, homogeneous. Stomach, the mucosa of which is in condition of moderate gastritis, is filled with soft black clot; œsophageal veins varicose, and several are ruptured.

Peritonitis.—336. M., 7. Much purulent fluid and lymph in peritoneal sac; extensive chronic peritonitis of upper part of abdomen, the viscera in epigastrium and hypochondria being firmly fixed together and the diaphragm; right oblique inguinal hernia. Brain 42 ozs. In left parietal region yellow hard homogeneous tumour nearly size of a golf-ball; posteriorly it abuts against occipital convolutions, and internally the posterior cornu; suppuration of right middle ear and of mastoid cells. Chronic pleuritis; pericardium thick and universally adherent. Mediastinal tissue from neck to diaphragm much indurated and thickened; thymus large, persistent; no enlarged or altered lymphatic glands in any part of the body.

25. M., 62. Suppurative acute and chronic peritonitis; peritoneum much thickened, especially at vertebral attachment of mesentery, so that the intestines are pulled up and "balled." Liver 52 ozs.; surface much puckered and

fissured; capsule densely thick. On section liver substance of yellow-ochre hue; consistence tough but no excess of fibrous tissue to naked eye. Spleen 21 ozs.; capsule thick; substance beefy, firm, of a darkened hue. Umbilical and double inguinal herniæ.

43. F., 47. Suppurative acute peritonitis. Chronic peritonitis of pelvic and lower abdominal peritoneum; uterus 4½ inches; suppurative salpingitis; fimbriæ adherent to ovaries, which are also suppurating; the right has burst into peritoneal sac. The pus in ovaries is thick, slimy, of a bright green hue; miliary abscesses of kidneys; left femoral omental hernia.

49. M., 13. Suppurative peritonitis; ulceration of vermiform appendix about centre; foreign body not found; encapsuled caseations and fibroid tubercles in lungs.

61. F., 31. Suppurative acute peritonitis; uterus 6¾ inches long, 4 inches across fundus (delivered of full term child 13 days before death); walls thick, soft; os ragged, torn, much congested, of a purple hue, patulous; placental size over left cornu and rather towards posterior aspect of fundus; uterine mucosa covered with thin sanious fluid. Fallopian tubes and fimbriæ much swollen; right ovary contains two cysts—one, the size of the fœtal head, is filled with purulent fluid; the other, the size of a walnut, contains a thin watery fluid; left ovary contains a cyst quite similar to the last.

68. M., 8. Suppurative acute peritonitis; ulceration of vermiform appendix; fæcal calculoid with shape and size of a date-stone in appendix.

109. F., 65. Acute peritonitis; puro-fæculent fluid and gas in sac; piece of small intestine 92 inches from pylorus is nipped in left femoral ring; piece nipped is semi-lunar in shape, does not involve whole lumen of gut; wall of gut has given way along constriction margin.

110. M., 47. Suppurative acute peritonitis; towards lower end of jejunum is a punched out ulcer (or rather aperture) with yellowish edges; diffuse extravasation into surrounding mucosa; viscera febrile but normal. The ulcer in duodenum was of traumatic origin; a kick in abdomen followed by sloughing of the wall of gut.

136. M., 14. Suppurative acute peritonitis; ulceration of vermiform appendix; fæcal calculoid.

Diseases of the Urinary System.

Nephritis.—320. M., 320. Kidneys 9½ and 10½ ozs.; surface smooth, cortex large, of a yellowish drab colour, pyramids purple, consistence flabby; slight general arteritis. Heart 18 ozs.; great hypertrophy of left ventricle. Liver 83 ozs., hard, red, smooth. Pancreas 3½ ozs., hard. Microscopical examination of liver normal; of kidney, slight general evenly distributed hyperplasia of the connective tissue element; excess of nuclei in places; Malpighian capsules and walls of arteries thick; muscular coat not specially hypertrophied; epithelia lining tubules small.

341. F., 37. Kidneys 4 ozs. each; capsules thickened, adherent, surface granular; cortices much wasted, a few cysts, consistence flabby; mottled. Chronic arteritis. Heart 22½ ozs.; hypertrophy of left ventricle. Stomach full of soft black clot; mucosa in condition of chronic gastritis; shows a few small superficial erosion ulcers. Œsophagus and intestines nil.

363. M., 44. Kidneys 21 ozs., smooth, soft; cortex large, drab speckled with yellow patches (degeneration), and red striæ (vessels); aorta and many arteries in condition of well-marked atheroma. Spleen 7 ozs. Malpighians amyloid. Liver 59 ozs., reddish brown in colour, rather soft; several large fibro-caseous masses (gummata). Syphilitic orchitis (fibrosis with caseation); hydrocele of both tunicæ vaginales; recent sores on penis; chronic and recent pleuritis; whole of right lung is consolidated, is large and heavy, of a pale red hue, of homogeneous consistence, easily lacerable, granular on fracture. In lower lobe some half dozen medium-sized branches of pulmonary artery are plugged with firm granular decolourized clot. The clot in the pulmonary artery and its two main branches is of the ordinary moribund stamp.

384. M., 42. Kidneys 8 ozs.; capsules adherent; surface granular; consistence tough; subscapsular cortex much wasted. Heart 20 ozs.; hypertrophy of left ventricle. Lungs emphysematous, œdematous, much engorged; hæmorrhagic infarct; turbid fluid and recent lymph in peritoneal sac; the gut from about middle of descending colon to upper part of rectum is indurated, thickened, and the mucosa of a greenish black hue, the mucosa below being soft and dark red, while above it is

quite natural; the pigmented portion of gut is covered with a thin layer of a greenish-brown colour, apparently a superficial necrosis of the mucosa.

97. F., 53. Kidneys 6¼ and 3½ ozs.; capsules adherent; cortex wasted; colour red. Heart 12 ozs.; hypertrophy of left ventricle. Bronchitis and broncho-pneumonia; about half-a-dozen myomata uteri; parovarian cyst 2 by 1 inch on right side.

101. F., 19. Kidneys 17½ ozs., smooth, flabby; cortex large, buff-coloured; pyramids purple. Heart 8½ ozs., no endocarditis; no hypertrophy; purulent fluid and soft yellow lymph in pleural sacs; grey hepatization of right upper and middle lobes. Spleen 8¾ ozs., about half is soft, much engorged, friable, the rest is yellowish, firm, with irregular wavy edge (early caseating infarct).

141. F., 43. Kidneys 11½ ozs.; capsules thickened, adherent; surface granular; cortex much wasted; numerous small cysts containing a brown glue-like substance; consistence firm; œdema of aryepiglottic mucosa. Heart 11 ozs.; no hypertrophy; many lymphatic glands are fibro-caseous.

Nephrosis.—127. F., 34. Right kidney large, flaccid, dilated; pelvis and calices filled with brick-red fluid; no grit; only thin band of recognisable renal tissue remains; no naked-eye evidence of surgical operation (13 days before), though there is some hæmorrhage into pelvic mucosa; left kidney represented by fibrous sac containing a little turbid fluid; both ureters patent, are not dilated; vesical mucosa injected, otherwise normal.

Cystitis.—37. M., 16. Bladder walls very thin; in condition of chronic cystitis; contains two or three ounces of decomposing urine; vesical mucosa much injected, but not ulcerated; prostate, which is quite small, is tunneled up by several smooth-walled cavities, and one of these on the left side communicates with the post-vesical cellular tissue. From here as high as level of kidneys the subperitoneal cellular tissue is in condition of diffuse suppurative inflammation. There are no calculi in the prostate; the left ureter is dilated, and its wall is thick; abscess of left kidney size of a walnut; its wall is thick, and its internal surface ragged. Liver 44 ozs., yellowish, soft, friable; numerous minute yellowish-white spherules beneath

capsule. Heart 7 ozs.; some hypertrophy of left ventricle; cadaveric softening of œsophagus with rupture into left pleural sac.

64. M., 74. Bladder distended; walls thin; numerous sacculations; mucosa smooth; several small fawn-coloured calculi free in bladder; urine fœtid, purulent; left ureter dilated; mucosa of pelvis of left kidney covered with a thick adherent yellow membrane; prostate not enlarged; no stricture; pelvic cellular tissue in condition of diffuse suppurative inflammation; atheroma of aorta and branches (coronaries calcified); right inguinal hernia; canal large.

Renal Calculus.—319. M., 50. Kidneys, right 8½ ozs., left 7½ ozs.; pelvis and calices of both are almost filled with large granular drab softish calculi; pelvic mucosa of left kidney is injected and blood-stained, and the fluid in pelvis is sanious; right kidney is pallid; cortex swollen, contains numerous miliary abscesses; bladder contracted; mucosa discoloured, but not inflamed. Heart 16 ozs.; hypertrophy of left ventricle.

89. M., 48. Descending colon firmly adherent to left kidney, which is surrounded by dense mass of fibrous tissue, burrowed out by fistulous passages, and cavities lined by pyogenic membrane, one of which opens externally in left loin; the kidney, which is much wasted, is bound down to the lumbar region by the fibrous growth around it, contains a largish hard gritty stone in its centre; the ureter is patent, but its walls are thick, and of a dirty green colour; the pelvic cavity of left kidney communicates with the descending colon by a narrow fistulous passage. Right kidney 7 ozs.; capsule adherent; surface granular; consistence soft, flabby; the vesical mucosa is studded all over with little patches of greenish black pigment, but in other respects is not noteworthy. Liver 81 ozs.; abscess size of a hen's egg on under portion of right lobe; the pus in the abscess is of an orange yellow colour. In lungs are four recent abscesses size of Spanish nut; pleuræ injected; aorta atheromatous.

Vesical Calculus.—322. M., 78. Suprapubic surgical wound. Between pubes and bladder is a dense mass of white fibrous tissue; bladder contracted; walls thick, sacculated; in one

saccule is a hard buff-coloured calculus of pyramidal shape; owing to its shape it is firmly incarcerated in saccule, the apex just peeping into bladder; vesical mucosa thick, swollen, of a dark purple hue. Three small spherical myomata in prostate. Kidneys 14 ozs.; capsules thick; a few small cysts in cortex. Many arteries atheromatous.

Enlarged Prostate.—41. M., 75. Bladder contracted; walls thin, sacculated; contains 18 cream-coloured, hard, facetted calculi, varying in size from a pea to a marble. Prostate very large; the enlargement is chiefly in the lateral lobes, though the "middle" lobe, the size of a walnut, springs up between and behind them. Right kidney, 12½ ozs., contains a cyst filled with clear straw-coloured fluid, the size of a turkey's egg; left 7½ ozs.; body very adipose. Only the bladder and kidneys were examined.

Diseases of the Generative System.

Cancer of the Ovary.—352. F., 47. Pelvis completely occluded, and filled with a firm white fibrous mass, in which are imbedded the pelvic viscera. Uterus normal in size and appearance; right ovary cystic; left ovary solid, size of a pigeon's egg; on section is found to be made up of numerous collections having a gland-like appearance; they are quite firm. The peritoneum is everywhere much thickened from presence of a firm white neoplasm, the parts most affected being the omentum and the mesentery, which are thickened and contracted so that the intestines are drawn up into a ball-like mass. The rectum is much contracted, and its course devious. The liver, which weighs 42 ozs., is quite spheroidal, all trace of lobation being lost owing to the great thickening of its capsule. Right kidney 1¼ oz., in condition of simple atrophy; left 5 ozs., nil. Microscopical examination of ovary and subperitoneal infiltration; ovary shows spheroidal areas traversed by a framework of fine blood-vessels, the interspaces of which are closely packed with thin columnar cells, having oval nuclei. The appearances are those of tubules or alveoli jammed together In some parts the cells are larger and rather epithelioid in character; nuclei circular. The centres of some of the areas are granular detritus (degeneration). The subperitoneal infiltration is marked chiefly

by coarse fibrous tissue, enclosing tubules of cells epithelioid in character. Both in the ovary, but more frequently in the sub-peritoneal tissue, are numerous "corpora amylacea."

86. F., 42. Peritoneum much thickened throughout from diffuse white cancerous infiltration; much pigmented. The coils of intestine are matted together and drawn up towards spine and diaphragm. The cancer has apparently spread from the ovaries, both of which are infiltrated, the left being cystic as well. Uterus elongated from presence of myoma size of turkey's egg. Liver grey, soft, friable, pallid; numerous soft white secondary deposits, varying in size from a pea to a marble. The larger ones are diffluent in centre. Some abdominal and thoracic lymphatic glands are infiltrated.

Diseases of the Ear.

Otitis.—325. F., 11. Left middle ear filled with curdy pus, amongst which is malleus and foot of stapes but no incus; suppuration of mastoid cells and of internal ear. Brain 44 ozs. Pia hyperæmic; suppurative meningitis, most of the pus covering the cerebellum, but a few small collections over cerebrum; arachnoid surface of dura of the posterior fossæ covered with thin layer of greenish lymph; deposit is more extensive on the left side; left inferior petrosal sinus plugged with breaking down clot. Between dura and bone, near apex of petrous bone, is thin collection of pus.

176. M., 14. Internal parts of left ear quite destroyed; some remains of membrana tympani still present; middle ear filled with yellow cheesy material; ossicles absent. Suppuration of mastoid cells; last inch of left lateral sinus plugged with firm decolourized greenish clot. Acute general meningitis; abscess of left lobe of cerebellum. Papillæ of retinæ swollen and both optic discs of a scarlet colour. Surgical opening size of sixpenny piece over against left lateral sinus. Suppurative bronchitis. Broncho-pneumonia.

Injuries and Surgical Operations.

Amputation at knee joint.—29. M., 35. No adhesion of flaps; large mass of soft black clot between flaps; no clot in artery. Lymphatic glands in left groin large, white, firm from

infiltration with new growth, for which left leg was removed. Mediastinal glands similarly infiltrated. Deposits in lungs.

Cyst of Thyroid.—23. F., 31. Thin-walled cyst of left thyroid, about size of small orange; contents, a clear thin gelatinous fluid. Its lower border is below clavicle; it presses on trachea, pushing it aside and also stenosing it. The left vessels and nerves are stretched over it, while the left recurrent is pinched between it and trachea. Rest of thyroid normal. Well-marked lacing constriction of liver. Uterus large; os linear; uterine mucosa covered with a thick soft but adherent milky white membranous deposit. Cyst size of turkey's egg in right ovary.

Urethral Obstruction.—330. M., 52. No obvious stricture, but prostate enlarged and quite hard from presence of numerous calculi, most of which are in left half. Bladder hypertrophied; mucosa discoloured; contains some ounces of turbid fœtid urine. Left lower extremity half-inch shorter than right, from old fracture of middle third of leg. Brain 48 ozs. Atrophy of inner half of left lenticular nucleus; it is flattened, somewhat puckered; not soft. No evidence of degeneration, but rather resembles "scar-tissue." Microscopical examination of cord showed descending lateral sclerosis.

96. M., 48. Tough stricture of membranous urethra, alongside which is false passage giving access to bladder. Tissues of penis around last 4 inches of urethra are in condition of slough. Atrophy of right testicle. Miliary abscesses of kidneys.

103. M., 47. Stricture of urethra with suppurative inflammation of soft tissue about base of penis. Urethrotomy wound. Rupture of urethra; bladder hypertrophied; mucosa in condition of sphacelus. Ureters dilated; capsules of kidneys very thick, dense, and adherent; granular condition of cortex of kidneys. Heart 16 ozs.; pericardium adherent; left ventricle hypertrophied. Large mass of pigmented fibroid tubercle in right upper lobe.

Hernia.—329. F., 70. Umbilical. Within sac is mass of omentum and a gangrenous coil of ileum, 48 inches from ileo-cæcal valve. No peritonitis. Body extremely adipose.

357. M., 32. Right inguinal canal very large. To wall of this sac is adherent a large cylindrical firm mass derived from right half of omentum. Loop of gut 10 inches long, and 100 inches above valve shows at each end constriction marks, the interval being purplish. Acute general peritonitis.

374. F., 43. Knuckle of ileum 30 inches from valve pinched in right femoral ring. Length of knuckle 2½ inches, much swollen, gangrenous; has ruptured into sac, which is filled with fæces. No general peritonitis. Uterus 5 inches, retroflexed; tubes and ovaries nil. Os uteri large, patulous; small sessile polypus at internal os. Posterior vaginal wall protrudes from between the labia. There is no prolapse of rectum.

19. M., 36. Surgical wounds over right scroto-inguinal region, and between umbilicus and pubes. General acute peritonitis (early). Right inner inguinal ring open, leads to thickened fibrous sac which has been operated on. Left ring closed. Last 30 inches of ileum contracted; wall of gut and the mesentery are much thickened from inflammatory infiltration. Middle two-thirds quite black (gangrenous). No mark of constriction. Right half of omentum much thickened, forms a hardish mass about as thick as the closed fist. Chronic pleuritis. Chronic interstitial pneumonia of both lungs.

166. F., 53. Umbilical. Large mass of omentum adherent to sac wall. About 4 inches of ileum 22 inches from valve are thin and black; constriction ring at each end. No peritonitis. Cortical atrophy of right kidney. Calcareous atheroma of aorta and branches.

Gangrene.—326. M., 56. Right foot swollen, boggy; big toe as far as ball black, gangrenous, sloughing; bones exposed; diffuse suppuration of soft tissues of sole, and of leg just above ankle; ankle joint filled with pus. Brain 38 ozs.; cranial bones very dense and hard. Dura adherent; atheroma of vessels at base. Old apoplectic cyst in outer half of right optic thalamus size of hemp seed. Heart 11 ozs.; aortic and mitral valves stiff and opaque from calcareous deposit; atheroma of aorta and branches. Liver 63 ozs., brownish. Pancreas with about 4 inches of duodenum = 6 ozs. Tough, otherwise nil; duct clear. Kidneys 16 ozs., apparently normal. A case of diabetes. Microscopical examination of pancreas showed nothing abnormal;

kidneys some evidence of chronic nephritis, but it is almost entirely arterio-capillary, *i.e.*, there is thickening of middle coat of arteries, some endarteritis, considerable excess of nuclei on malpighians with some thickening of their capsules. The glandular epithelia seem quite normal. The arteries of leg show, (*a*) Chronic endarteritis; (*b*) Calcification of the middle coat, the latter change being the more pronounced.

398. F., 51. Right leg gangrenous; line of demarcation extends from lower third of thigh in front to popliteal space behind. Limb scarcely if at all swollen; foot is dry, hard, parchment-like, except heel, which is black. Between foot and demarcation line colour of skin is dusky red. Artery and veins of right extremity plugged with clot, which is breaking down; clot is soft, granular, partly decolourized, partly black, adherent in places. The clot in the veins and arteries extends as high as bifurcation of aorta; secondary branches of both pulmonary arteries are plugged with decolourized granular clot such as exists in common iliac vein; three infarcts in right lung. Heart 19 ozs.; endocardium normal; in diastole; blood fluid, except for cylindrical ante-mortem polypus attached to a chorda in right ventricle, probably detached from clot in vein. No obvious arteritis. Kidneys 6½ and 2½ ozs. A few cysts in right, left in condition of simple atrophy; the surrounding adipose tissue is much indurated. Died suddenly.

Ovariotomy.—378. F., 24. Both ovaries absent; both stumps ligatured; left broad ligament, fallopian tube and cornu are absent, leaving the pelvic cellular tissue exposed; this is blood-stained and œdematous. Recent general peritonitis.

27. F., 50. Left ovary absent; stump ligatured, covered with firm organising clot size of walnut; uterus, walls thin; contains several small spherical myomata; cavity greatly dilated and filled with soft putrescing mass resembling a decomposing mucous polypus. Soft polypoid growths project from external os. Right ovary cystic, size of a pigeon's egg. Acute general peritonitis with sanious fluid in sac; chronic peritonitis, the omentum is taut and firmly adherent to left flank and pelvic viscera. Right pleura covered with a thin layer of greenish yellow lymph. Very large extravasation of blood into abdominal wall, between peritoneum and muscles.

Fractures.—339. M., 50. Fracture of lower six ribs of both sides of arch of third lumbar vertebra; hæmorrhage into spinal canal between dura and bone as high as cervical region. Laceration of both lungs; blood in both pleural sacs; laceration of liver and of right kidney; both kidneys very granular; heart large; hypertrophy of left ventricle.

152. F., 72. Fracture of second, third, fourth, fifth, and sixth right ribs; fracture of sternum right across middle; fracture of right clavicle; bones generally very fragile; kidneys granular; ovaries indurated, shrivelled, cystic; right as large as walnut; uterus small, os pinhole; posterior surface adherent to rectum with obliteration of Douglas' space.

117. M., 48. Comminuted fracture of pelvis; sacrum and both innominate bones being fractured; considerable extravasation into soft tissues inside and outside pelvis; peritoneum and bladder uninjured; transverse simple fracture of left humerus; compound comminuted fracture of both bones of right leg in middle third. Big toe joints ankylosed; osteo-arthritis; considerable thickening of capsule; deposits of urate of soda in both.

137. M., 30. Hæmorrhage into soft tissues of scalp; fracture of right parietal bone, passing downwards and forwards into temporal bone traversing middle ear, which is filled with blood clot; between dura and bone is a soft black placentiform clot 3 inches in diameter, which has flattened and depressed the whole of the right parietal region. Brain 45 ozs. Pelvic cellular tissue infiltrated with blood. T-shaped fracture of right innominate bone; one leg of T passing from acetabulum into obturator foramen, one backwards to ilium, one downwards towards spine of ischium; no bruising about trochanter; right leg a little shorter than left with eversion of foot.

153. M., 25. Compound comminuted depressed fracture of anterior fossæ of skull; simple fracture of left middle and posterior fossæ; compound comminuted fracture of right elbow and right knee joints; simple fracture of left ankle and knee joints; fracture of eleventh and twelfth left ribs; fracture of right half of pelvis. Brain 49 ozs.; considerable subarachnoid hæmorrhage and bruising of cortex, especially in frontal region; both testicles much bruised; recent granulating wound of prepuce.

173. M., 50. Compound comminuted depressed fracture of skull at outer part of right frontal region; fracture passes inwards across orbital roof and across right middle fossa, meeting at base; hæmorrhage into left mastoid cells, but not into middle ear; no fracture of left temporal bone; comminuted fracture of right elbow joint; fracture of all the right ribs and the eighth left; transverse fracture of manubrium sterni; comminuted fracture of right innominate bone passing into hip joint, which contains some sanious fluid; peritoneum and bladder uninjured; hæmorrhagic extravasation into cellular tissue of pelvis; blood in right pleural sac, and laceration of right lung; right leg about half inch shorter than left; slight eversion.

Rupture of Lung.—2. M., $3\frac{4}{12}$. Emphysema of soft tissues in front of thorax and of mediastinum; dark fluid blood in both pleural sacs; right upper and lower lobes exhibit complete rupture from before backwards in same vertical line; rupture has united, but the adhesions are soft and easily break down; the pulmonary tissue of both lungs is much consolidated from hæmorrhagic extravasation, the parts least affected being the lower fourths; both lungs are of a dark purple hue; the right lower lobe is covered with thin layer of recent lymph; no fracture; no bruising anywhere.

Rupture of Intestine.—6. F., 5 days. Peritoneal sac filled with meconium; sigmoid flexure much distended, and its walls thin; at the recto-sigmoid junction there is a large rent, through which the contents of the bowel have escaped; some soft recent lymph on upper part of peritoneum; the rectum ends blindly close to the skin at the level of the top of the coccyx; a puckered dimple represents the position of the anus.

Rupture of Liver.—121. M., 14. Peritoneal sac contains about two pints of clot and blood. Liver 32 ozs.; right and left lobes completely separated; nothing else is damaged except the edges of the lower and middle lobes of right lung which are bruised; no blood in pleural sacs; no fracture.

Burn.—30. F., 7. Burn of face, neck, upper and lower extremities; tracheotomy wound; œdema of aryepiglottic mu-

cosa; suppurative bronchitis; burnt skin dry and leathery in most places, but raw and covered with discharge or bullæ in others.

74. F., $\frac{19}{12}$. Skin of front of thorax and abdomen red, raw ulcerating. Rickets.

161. F., 45. Skin over lower half of buttock, on inside and back of both thighs, front of right thigh and lower part of abdomen, is red, uneven, granular, and covered with sanio-purulent discharge; there are a few small patches covered with a brownish slough (a healthy-looking granulating sore). The viscera are febrile, but in other respects not noteworthy. Death on 21st day.

Asphyxia.—354. M., 3 days. Deep jaundice; blood issuing from nose; lips blue; general lividity of cutaneous surface; no marks of violence; no centre of ossification at lower end of either femur; cord mummified; right testicle small, lying on brim of pelvis; left in scrotum; vessels of brain congested; nervous substance quite yellow throughout; pleuræ smooth and shiny; lungs much engorged with blood, especially the right lower lobe, which is blue and solid from congestion and extravasation; both auricles are distended with soft black clot; ductus arteriosus patent, walls thick. Liver, much blood escapes on section; gall bladder contains a little greenish bile; no obstruction.

Fatty Tumour of Pelvis.—104. F., 46. Discoidal fatty tumour, 4 inches in diameter, $1\frac{1}{8}$ inches thick, lying in pelvis directly behind rectum, which from the pressure is much ulcerated, the muscular fibres being exposed. The gut as high as middle of descending colon is thickened, and the mucosa softened, ulcerated, and of a slate colour. Some recent diffuse suppurative periproctitis. Thyroid small; right lobe calcified.

Ptomaine Poisoning.—132. M., 22. Intestinal mucosa, especially of ileum and colon, much congested and hyperæmic; no entero-colitis. Mesenteric glands large, soft, swollen, hyperæmic. Spleen $3\frac{3}{4}$ ozs., free, firm, dark, homogeneous. Lungs much engorged, marked with petechiæ all over. Lower lobes in condition of soft consolidation, friable. Pleuræ nil.

Cutaneous and subcutaneous tissue covered with blotches of faint purple hue (the remains of a slightly raised morbilliform rash); most marked on face and trunk. Viscera generally febrile.

Opium Poisoning.—75. M., 47. Surface generally very livid; viscera congested and blood-stained from blood decomposition. Kidneys, 15 ozs.; much engorged, otherwise normal to naked eye. On microscopical examination the kidneys show chronic and acute nephritis, the latter predominating. There are a few areas of fibrosis and a good few fibrosed malpighians. Basement membrane well marked, coarse. The epithelial cells drop out of the tubules very freely; they are very granular. Many tubules filled with blood and casts.

Chloroform Poisoning.—386. F., 4. Tracheotomy wound. Both middle ears filled with muco-purulent fluid. Blood fluid, no clot; viscera blood-stained. Lungs slightly œdematous; colour a pale drabby pink, mottled with areas of purple where the pulmonary tissue is non-crepitant from diffuse hæmorrhagic extravasation; at least one-third of the bulk of the lung is thus involved. Pleuræ smooth, shiny. Heart 2½ ozs.; right ventricle in diastole; both right ventricle and auricle are quite empty. Right heart looks like an empty flaccid bag; left ventricle firm and contracted. The large veins going to the heart are full of blood. The lungs and gastric contents had faint but decided odour of chloroform (when first exposed).

Unclassified.

11. M., 14 days. Body ill-nourished. Skin of a dusky brownish hue, not jaundiced; on outside of lower half of left leg there is a patch of dark blue skin, 1½ by 1 inch, which on incision shows that it has been infiltrated with blood, probably a blood decomposition; it is not a bruise from traumatism. The muscular tissue is everywhere of a very pale brown colour. The blood is everywhere quite brown and stains the tissues and organs of the same colour. It is for the most part liquid and viscid, but in the cavæ there is some soft blackish brown clot. The viscera throughout presented nothing abnormal, except

that the spleen is very firm, almost hard, and quite black. This child was admitted for red rash on buttocks and thighs, and aphthous stomatitis. It was marasmic. The mouth was brushed out with 10 per cent. solution of resorcin thrice daily. Shortly before death it became suddenly blue all over, became unconscious, and died without evidence of affection of any particular organ.

90. M., 53. Ecchymosis of both eyelids, superficial abrasion on nose. Bruise on centre of vertex (traumatic, from fall). Brain congested, otherwise nil. Costal cartilages calcified. Lungs œdematous. Cardiac cavities distended with soft black clot. Abdominal viscera normal. Arteries atheromatous. Was seen to fall on head in street. Picked up unconscious. Convulsions, chiefly right-sided. Pupils contracted. No albumen; no sugar. Died comatose 10 hours after admission.

MEDICAL REGISTRAR'S REPORT FOR THE YEAR 1894.

By Dr. GOSSAGE.

Number of patients in the Hospital on Jan. 1st, 1894			78
" " " Dec. 31st, 1894			75
Admitted to Medical Wards during the year			1,371
Of these—Males	774		
Females	597		
Average number of patients in Hospital			88·5
Average stay in Hospital of each patient			23·5 days
Recovered or relieved			1,130
Males	629		
Females	501		
Unrelieved, including those sent to Surgical or Obstetrical Wards			72
Males	37		
Females	35		
Died			169
Males	108		
Females	61		

The mortality during the year was 11·57 per cent.

Table A.

DISEASE.	Jan. to March.	April to June.	July to Sept.	Oct. to Dec.	Sex. Males.	Sex. Females.	Sex. Total.	Age. Under 5 yrs	Age. 5—10.	Age. 10—20.	Age. 20—30.	Age. 30—40.	Age. 40—50.	Age. 50—60.	Age. Over 60.	Result. Death. M	Result. Death. F	Result. Unrelieved. M	Result. Unrelieved. F	Result. Relieved. M	Result. Relieved. F
General Diseases:																					
Group A:																					
Scarlatina	1	1	2	...	...	4	4	...	1	1	2	...	...	...	...	...	...	...	4	...	...
Morbilli	3	9	1	1	7	7	14	9	1	2	2	...	...	...	...	2	3	1	1	4	3
Enteric fever	13	9	6	15	24	19	43	3	7	14	11	7	1	...	...	5	...	...	...	19	19
Diphtheria	3	4	6	8	12	9	21	10	8	...	1	2	...	...	...	6	4	1	...	5	5
Febricula	6	7	2	...	8	7	15	9	3	2	...	1	...	...	...	...	...	...	...	8	7
Varicella	...	...	1	...	1	...	1	...	1	...	...	...	...	...	...	...	...	...	...	1	...
Influenza	7	5	8	24	24	20	44	3	2	10	21	4	3	...	...	...	...	...	...	24	20
Erysipelas	1	...	1	...	1	1	2	...	...	1	...	1	...	...	...	...	...	...	...	1	1
Pertussis	2	2	9	7	6	14	20	17	3	...	...	...	...	...	...	...	1	4	2	2	11
Intermittent fever	...	...	4	...	4	...	4	1	...	...	2	1	...	...	...	...	...	...	...	4	...
Syphilis:																					
1. Congenital	1	...	1	1	2	1	3	2	...	1	...	...	...	...	...	...	...	...	...	2	1
2. Acquired	3	4	2	4	11	2	13	...	...	...	1	5	4	2	1	1	...	...	...	10	2
Pyæmia	1	...	2	2	3	2	5	2	...	1	...	1	1	...	...	2	2	...	...	1	...
Gonorrhœa	1	...	...	...	1	...	1	...	...	...	1	...	...	...	...	...	...	...	...	1	...
Gonorrhœal Arthritis	...	...	1	...	1	...	1	...	...	...	...	1	...	...	...	...	...	...	...	1	...
Parotitis	...	1	...	1	1	1	2	...	1	...	...	...	1	...	...	...	...	...	...	1	1
Group B:																					
Poisons:																					
Alcohol	1	1	1	...	2	1	3	...	...	...	...	1	1	1	...	...	...	...	...	2	1
Lead	1	...	1	4	5	1	6	...	...	1	1	...	3	...	1	...	...	...	...	5	1
Mercury	1	...	...	...	...	1	1	...	...	...	...	1	...	...	...	...	...	...	...	...	1
Carbolic Acid	...	1	...	...	...	1	1	1	...	...	...	...	...	...	...	...	...	...	...	...	1
Camphor Liniment	...	...	1	...	...	1	1	...	...	...	...	1	...	...	...	...	...	...	...	...	1
Ammonia	...	...	1	...	1	...	1	...	...	...	...	...	...	...	1	...	...	...	...	1	...
Group C:																					
Developmental Diseases:																					
Debility	2	2	3	1	2	6	8	...	...	1	...	2	4	...	1	...	...	...	1	2	5
Marasmus	...	1	1	2	2	2	4	4	...	...	...	...	...	...	...	2	1	...	...	...	1
Group D;																					
Not classified:																					
Acute Rheumatism	29	23	9	11	43	29	72	2	4	18	29	12	6	1	...	...	...	...	...	43	29
Subacute ditto	...	3	2	3	5	3	8	...	...	...	5	1	2	...	...	...	...	...	...	5	3
Chronic ditto	1	1	2	2	2	4	6	...	...	...	3	3	...	...	...	...	...	...	...	2	4
Gout	3	...	1	1	5	...	5	...	...	...	...	2	1	2	...	...	...	...	...	5	...
Osteo-arthritis	1	1	...	1	3	...	3	...	...	...	...	1	...	1	1	...	...	1	...	2	...
Tuberculosis	10	6	7	7	21	9	30	14	7	1	1	3	2	2	...	12	7	1	...	8	2
Rickets	...	1	...	...	1	...	1	1	...	...	...	...	...	...	...	...	...	...	...	1	...
Anæmia	4	7	9	4	1	23	24	1	...	8	10	3	2	...	...	...	...	...	...	1	23
Pernicious anæmia	...	1	2	...	2	1	3	...	...	...	...	...	2	1	...	...	1	1	...	1	...
Leucocythæmia	...	...	...	1	...	1	1	...	...	...	...	...	1	...	...	...	1	...	...	...	...

TABLE A—*continued.*

DISEASE.	Jan. to March.	April to June.	July to Sept.	Oct. to Dec.	Sex.			Age.							Result.					
					Males.	Females.	Total.	Under 5 yrs.	5—10.	10—20.	20—30.	30—40.	40—50.	50—60.	Over 60.	Death.		Unrelieved.		Relieved.	
																M	F	M	F	M	F
GENERAL DISEASES—*continued*—																					
Purpura	1	2	2	1	4	2	6	...	2	1	1	1	1	...	...	...	...	...	...	4	2
Hæmophilia	...	1	1	2	4	...	4	1	...	2	...	...	1	...	...	...	...	...	...	4	...
Diabetes	...	3	...	2	4	1	5	...	...	2	...	...	2	1	...	...	...	2	...	2	1
Raynaud's disease	...	...	...	1	1	...	1	...	...	...	...	1	...	...	...	...	...	...	...	1	...
DISEASES OF THE NERVOUS SYSTEM:																					
Brain:																					
Hæmorrhage	2	2	1	...	2	3	5	...	1	...	...	1	1	1	1	2	2	...	...	...	1
Hemiplegia	2	1	4	2	5	4	9	1	...	...	1	1	3	1	2	...	...	...	...	5	4
Tumour	1	1	4	5	6	5	11	...	1	5	1	2	1	...	1	...	1	...	...	6	4
Abscess	...	1	1	...	1	1	2	...	...	1	1	...	...	...	...	1	1	...	...	...	...
Meningitis	...	...	3	...	2	1	3	1	2	...	...	...	...	...	...	2	1	...	...	...	...
Cerebral irritation	...	1	...	...	1	...	1	...	...	...	...	...	...	1	...	...	...	...	...	1	...
Cerebro-spinalsclerosis	...	...	...	1	1	...	1	...	...	...	...	...	1	...	...	...	...	...	...	1	...
Cord:																					
Anterior polio-myelitis	...	2	...	1	3	...	3	2	...	...	1	...	...	...	...	...	...	1	...	2	...
Spastic paralysis	1	2	1	...	3	1	4	...	...	...	...	2	1	1	...	...	...	...	1	3	...
Tabes dorsalis	1	3	2	1	5	2	7	...	...	...	...	3	3	1	...	...	...	...	...	5	2
Various:																					
Sciatica	2	2	4	1	8	1	9	...	...	1	2	...	5	...	1	...	...	...	...	8	1
Peripheral neuritis	1	4	1	2	5	3	8	...	1	2	...	1	4	...	...	...	...	...	...	1	5	2
Diphtheritic paralysis	1	1	...	...	2	...	2	2	...	...	...	...	...	...	...	...	...	...	...	...	2	...
Epilepsy	2	1	...	5	4	4	8	...	4	...	...	2	...	...	2	...	1	...	...	4	3
Hystero-epilepsy	2	...	...	...	...	2	2	...	...	2	...	...	..	...	...	...	...	...	...	...	2
Infantile convulsions	4	1	...	2	3	4	7	7	...	...	...	...	...	...	...	1	...	...	...	2	4
Chorea	11	5	4	1	6	15	21	...	8	12	1	...	...	...	...	...	...	...	...	6	15
Hysteria	5	3	7	5	2	18	20	...	2	5	9	...	3	1	...	...	...	...	...	2	18
Paralysis agitans	...	...	...	1	...	1	1	...	...	...	...	1	...	...	...	...	...	...	...	...	1
Pseudo-hypertrophic muscular paralysis	...	1	1	...	2	...	2	...	1	1	...	...	...	...	...	...	...	...	...	2	...
Neuralgia	2	...	2	...	4	...	4	...	...	...	1	1	1	1	...	...	...	1	...	3	...
Laryngismus	1	...	...	...	1	...	1	1	...	...	...	...	...	...	...	...	...	...	...	1	...
Mental:																					
Dementia	1	...	1	1	...	3	3	1	...	...	...	...	...	1	1	...	...	...	...	...	3
Idiocy	...	1	...	...	1	...	1	...	...	1	...	...	...	...	...	...	...	...	...	1	...
General paralysis of the insane	...	1	...	2	2	1	3	...	...	...	...	2	1	...	...	...	...	2	1	...	...
Melancholia	...	...	1	...	...	1	1	...	...	...	1	...	...	...	...	...	...	...	...	...	1
Mania	1	...	...	...	...	1	1	...	...	...	...	1	...	...	...	...	...	...	1	...	...
Delusional insanity	1	1	...	...	...	2	2	...	...	...	2	...	...	...	...	...	...	...	2	...	...
Hypochondriasis	...	3	...	...	3	...	3	...	...	...	...	1	2	...	...	...	...	...	...	3	...

TABLE A—*continued.*

DISEASE.	Jan. to March.	April to June.	July to Sept.	Oct. to Dec.	Sex. Males.	Sex. Females.	Sex. Total.	Age. Under 5 yrs.	5–10.	10–20.	20–30.	30–40.	40–50.	50–60.	Over 60.	Result. Death. M	Death. F	Unrelieved. M	Unrelieved. F	Relieved. M	Relieved. F
DISEASES OF THE EAR:																					
Otitis media	1	...	...	2	...	3	3	2	...	...	1	...	...	...	...	...	1	...	1	...	1
Disease of auditory nerve	1	...	...	...	...	1	1	...	...	...	...	...	1	...	...	...	...	...	...	...	1
DISEASES OF THE CIRCULATORY SYSTEM:																					
Dilatation of the heart	1	1	1	1	2	2	4	...	...	...	...	1	...	1	2	2	...	...	1	...	1
Fatty heart	...	...	...	2	2	...	2	...	...	...	2	...	...	...	...	...	...	...	2	...	...
Endocarditis (not arising in hospital):																					
Mitral:																					
1. With presystolic murmur	...	2	2	2	2	4	6	...	...	2	1	1	1	1	...	1	2	...	...	2	1
2. With systolic murmur	6	5	9	8	13	15	28	...	5	10	1	2	4	6	...	...	...	...	...	13	15
3. With double murmur	3	4	7	7	6	15	21	...	3	10	2	5	...	1	...	...	3	...	...	6	12
Aortic:																					
1. With diastolic murmur	...	...	2	...	1	1	2	...	...	...	1	...	1	...	...	...	...	...	...	1	1
2. With double murmur	8	10	7	13	27	11	38	...	...	6	6	12	6	4	4	4	1	2	...	21	10
Ulcerative endocarditis	...	1	...	2	2	1	3	...	...	...	1	1	1	...	...	2	1	...	...	...	...
Pericarditis	2	1	...	2	2	3	5	1	1	1	2	...	...	...	...	...	1	...	...	2	2
Congenital heart disease	1	...	1	...	1	1	2	...	...	...	1	1	...	...	...	...	...	...	...	1	1
Angina pectoris	...	...	...	1	1	...	1	...	...	...	...	1	...	...	...	...	...	...	...	1	...
Aneurysm:																					
1. Thoracic	5	1	2	2	9	1	10	...	...	...	...	2	2	4	2	3	...	...	...	6	1
2. Abdominal	1	...	...	...	1	...	1	...	...	...	...	...	1	...	...	...	...	...	...	1	...
Phlegmasia dolens	...	2	1	...	1	2	3	...	...	...	2	...	...	...	1	...	...	...	...	1	2
DISEASES OF THE RESPIRATORY SYSTEM:																					
Laryngitis, acute	3	3	1	...	5	2	7	3	4	...	...	...	...	...	...	...	...	...	...	5	2
Stenosis of larynx	...	1	...	...	...	1	1	...	...	...	...	...	...	1	...	...	...	...	...	...	1
Bronchitis:																					
1. Acute	13	7	6	13	26	13	39	30	3	1	1	2	1	...	1	...	...	...	...	26	13
2. Chronic	6	2	5	7	9	11	20	6	2	2	1	2	4	1	2	...	1	1	...	8	10
Bronchiectasis	...	...	2	2	3	1	4	1	...	1	...	...	1	1	...	...	...	...	1	3	...
Pneumonia:																					
1. Lobar	20	23	14	14	53	18	71	19	13	12	13	10	1	3	...	7	1	...	...	46	17
2. Lobular	12	5	1	7	13	12	25	23	...	...	...	1	1	...	...	8	2	...	...	5	10
Phthisis	17	26	36	16	57	38	95	...	...	13	24	27	12	13	6	13	7	5	3	39	28

TABLE A—*continued.*

DISEASE.	Jan. to March.	April to June.	July to Sept.	Oct to Dec.	Sex. Males.	Females.	Total.	Age. Under 5 yrs.	5—10.	10—20.	20—30.	30—40.	40—50.	50—60.	Over 60.	Result. Death. M	F	Unrelieved. M	F	Relieved. M	F
DISEASES OF THE RESPIRATORY SYSTEM—*continued*—																					
Malignant disease of lung	...	...	2	...	2	...	2	...	...	...	...	1	1	...	...	...	...	1	...	1	...
Emphysema	4	3	3	7	12	5	17	...	...	...	2	3	2	7	3	1	...	...	...	11	5
Pleurisy :																					
1. With effusion	13	13	9	5	26	14	40	3	4	7	8	10	5	2	1	...	...	...	...	26	14
2. Without effusion	3	1	1	4	6	3	9	...	...	4	2	2	1	...	...	...	...	...	...	6	3
Empyema	2	4	3	2	8	3	11	2	2	1	1	3	2	...	...	1	...	3	...	4	3
Asthma	1	1	2	...	3	1	4	...	...	2	...	1	...	...	1	...	...	...	...	3	1
Pneumothorax	...	...	...	1	1	...	1	...	...	...	...	1	...	...	...	...	...	...	...	1	...
DISEASES OF THE DIGESTIVE SYSTEM :																					
Mouth :																					
Stomatitis	...	2	...	1	1	2	3	2	1	...	...	...	...	...	...	...	...	...	...	1	2
Malignant disease of the tongue	1	...	...	...	...	1	1	...	...	...	1	...	...	...	...	...	...	...	1	...	...
Pharynx and Œsophagus:																					
Tonsillitis	4	15	17	11	28	17	45	9	7	13	15	1	...	...	...	...	...	1	...	27	17
Malignant disease of œsophagus	1	...	...	2	3	...	3	...	...	...	...	1	1	...	1	2	...	1	...	...	...
Stomach :																					
Dyspepsia	1	5	1	4	2	9	11	...	...	...	5	4	2	...	...	...	...	...	...	2	9
Acute gastritis	...	...	1	2	...	3	3	...	1	1	1	...	...	...	...	...	...	...	...	...	3
Ulcer	10	6	5	8	8	21	29	...	...	6	16	4	3	...	...	1	...	...	1	7	20
Carcinoma	4	3	...	2	6	3	9	...	...	...	...	1	5	...	3	...	...	...	1	6	2
Dilatation of the stomach	1	...	2	...	3	...	3	...	...	...	1	...	2	...	...	...	...	...	...	3	...
Vomiting	1	3	3	1	4	4	8	1	1	...	1	1	2	1	1	...	...	...	...	4	4
Intestines :																					
Diarrhœa	6	8	22	2	23	15	38	22	2	3	4	2	2	3	...	5	2	1	1	17	12
Constipation	1	1	2	1	3	2	5	...	1	2	1	...	1	...	...	...	...	...	...	3	2
Colic	...	1	4	3	7	1	8	1	...	2	3	1	1	...	...	...	...	...	...	7	1
Enteritis	1	1	2	2	4	2	6	2	1	1	...	2	...	...	...	...	1	...	...	4	1
Typhlitis	2	3	3	4	9	3	12	...	2	3	5	1	1	...	...	...	...	...	...	9	3
Perforation of vermiform appendix	2	...	1	...	2	1	3	...	1	1	...	1	...	...	...	2	1	...	...	...	...
Duodenal ulcer	...	...	...	2	2	...	2	...	...	1	...	1	...	...	...	...	...	...	...	2	...
Ulcerative colitis	...	...	...	1	1	...	1	...	...	1	...	...	...	...	...	1	...	...	...	...	...
Malignant disease	2	...	...	...	2	...	2	...	...	...	1	1	...	...	...	2	...	...	...	...	...
Tape-worms	...	...	...	1	...	1	1	...	...	...	1	...	...	...	...	...	...	...	...	...	1

TABLE A—*continued.*

DISEASE.	Jan. to March.	April to June.	July to Sept.	Oct. to Dec.	Sex. Males.	Females.	Total.	Age. Under 5 yrs.	5—10.	10—20.	20—30.	30—40.	40—50.	50—60.	Over 60.	Result. Death.		Unrelieved.		Relieved.	
																M	F	M	F	M	F
DISEASES OF THE DIGESTIVE SYSTEM—*continued*—																					
Pancreas:																					
Cirrhosis	...	...	1	...	1	...	1	...	...	...	...	1	...	...	...	1	...	...	...	...	...
Liver:																					
Cirrhosis:																					
1. Atrophic	...	1	1	3	4	1	5	...	...	...	...	1	1	2	1	2	...	...	...	2	1
2. Hypertrophic	...	...	...	1	...	1	1	...	...	...	...	1	...	...	...	...	1	...	...	...	...
Malignant disease	...	1	1	...	1	1	2	...	...	...	...	...	...	1	1	...	...	1	1	...	...
Gall stones	...	...	2	1	3	...	3	...	...	...	...	1	2	...	...	...	...	1	...	2	...
Syphilitic disease	1	...	...	...	...	1	1	...	...	...	...	...	1	...	...	...	...	...	...	...	1
Jaundice (simple)	...	2	3	3	6	2	8	1	...	1	3	1	1	...	1	...	...	1	...	5	2
Hydatid	2	1	1	...	...	4	4	...	...	2	2	...	...	...	...	...	2	...	...	...	2
Peritoneum:																					
Malignant disease	...	...	...	1	...	1	1	...	...	...	...	...	...	1	...	...	...	...	...	...	1
Tubercular peritonitis	...	1	...	...	1	...	1	1	...	...	...	...	...	...	...	1	...	...	...	...	...
Ascites	...	1	1	...	...	2	2	...	...	...	...	...	1	1	...	...	...	...	...	...	2
Acute peritonitis	...	...	...	1	1	...	1	...	...	...	...	...	1	...	...	1	...	...	...	...	...
DISEASES OF THE LYMPHATIC SYSTEM—																					
Lymphangitis	...	...	...	1	1	...	1	...	...	...	...	1	...	...	...	...	...	...	...	1	...
Hodgkin's disease	...	1	1	...	1	1	2	...	1	...	...	1	...	...	...	...	...	1	1	...	...
Obstruction of lymphatics	...	...	...	1	...	1	1	...	...	...	1	...	...	...	...	...	...	...	...	...	1
DISEASES OF THE THYROID BODY:																					
Exophthalmic goître	...	1	1	1	1	2	3	...	...	...	2	1	...	...	...	...	...	...	...	1	2
Myxœdema	1	1	...	...	...	2	2	...	...	...	...	2	...	...	...	...	...	...	...	...	2
Bronchocele	...	1	...	...	1	...	1	...	...	1	...	...	...	...	...	...	...	...	...	1	...
DISEASES OF THE SUPRARENAL CAPSULES:																					
Addison's disease	...	1	2	1	3	1	4	...	...	...	1	...	2	1	...	2	...	...	...	1	1
DISEASES OF THE URINARY SYSTEM:																					
Acute nephritis	4	2	...	2	4	4	8	1	1	1	2	1	1	1	...	...	1	...	...	4	3
Chronic nephritis:																					
1. Large white kidney	2	7	7	3	12	7	19	...	1	3	4	9	1	1	...	3	1	1	...	8	6
2. Contracted kidney	6	11	8	2	17	10	27	...	...	...	...	4	12	7	4	5	2	1	1	11	7

TABLE A—*continued.*

DISEASE.	Jan. to March.	April to June.	July to Sept.	Oct. to Dec.	Sex.			Age.								Result.					
					Males.	Females.	Total.	Under 5 yrs.	5—10.	10—20.	20—30	30—40.	40—50.	50—60.	Over 60.	Death.		Unrelieved.		Relieved.	
																M	F	M	F	M	F
DISEASES OF THE URINARY SYSTEM—*continued*—																					
Malignant disease of kidney	...	1	...	...	1	...	1	...	...	...	...	...	...	1	...	1	...	...	...	...	...
Renal calculus	...	3	2	1	4	2	6	...	2	1	1	1	1	...	...	...	...	...	...	4	2
Urethral stricture	1	...	...	...	1	...	1	...	...	...	...	...	1	...	...	1	...	...	...	...	...
DISEASES OF THE SKIN:																					
Eczema	...	1	1	...	2	...	2	...	...	...	...	...	1	...	1	...	...	...	...	2	...
Psoriasis	...	1	...	...	...	1	1	...	1	...	...	...	...	...	...	...	...	...	...	...	1
Erythæma	1	3	3	...	3	4	7	1	1	4	...	...	1	...	...	...	...	...	...	3	4
Herpes	...	...	1	...	1	...	1	...	...	1	...	...	...	...	...	...	...	...	...	1	...
Lupus	...	1	...	...	...	1	1	...	...	1	...	...	...	...	...	...	...	...	1	...	...
Impetigo contagiosa	...	2	...	...	1	1	2	2	...	...	...	...	...	...	...	...	...	...	...	1	1
Phtheiriasis	...	...	...	1	1	...	1	...	...	...	...	...	...	1	...	...	...	...	...	1	...
Urticaria	...	...	...	1	1	...	1	...	...	...	...	...	...	1	...	...	...	...	...	1	...
DISEASES OF WOMEN:																					
Pelvic peritonitis	...	...	3	2	...	5	5	...	...	2	3	...	...	...	...	...	...	...	...	...	5
Pelvic cellulitis	1	...	...	...	...	1	1	...	...	...	1	...	...	...	...	...	...	...	...	...	1
Dysmenorrhœa	...	...	...	3	...	3	3	...	...	1	2	...	...	...	...	...	...	...	...	...	3
Malignant disease of uterus	2	...	...	...	...	2	2	...	...	...	...	1	...	1	...	...	1	...	1	...	...
Malignant disease of ovary	1	...	...	...	...	1	1	...	...	...	...	...	...	1	...	...	1	...	...	...	...
Ovarian tumour	1	1	...	4	...	6	6	...	...	...	...	1	3	2	...	...	2	...	2	...	2
VARIOUS:																					
Dentition	...	1	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Abscesses (various)	1	1	2	...	2	2	4	1	1	1	1	...	...	...	...	...	...	...	...	1	2	1
Ulcers (various)	...	1	...	...	...	1	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1
Abdominal tumour	1	...	1	...	...	2	2	...	...	...	...	...	...	...	2	...	...	...	1	...	1
Caries of spine	1	...	...	...	1	...	1	1	...	...	...	...	...	...	...	...	...	1	...	...	...
Enlarged glands	...	1	...	...	...	1	1	1	...	...	...	...	...	...	...	...	...	...	...	...	1
Morbus coxæ	...	...	1	...	...	1	1	...	...	1	...	...	...	...	...	...	...	...	1	...	...
Tracheotomy	...	1	...	...	...	1	1	1	...	...	...	...	...	...	...	...	...	...	...	...	1
Synovitis of knee	...	...	1	...	...	1	1	...	...	...	...	...	1	...	...	...	...	...	...	...	1
Hernia	...	...	1	...	1	...	1	...	...	...	...	...	1	...	...	...	...	...	...	1	...
Cellulitis of hand	...	...	1	1	...	2	2	2	...	...	...	...	...	...	...	...	...	...	...	...	2
Empyema of antrum	...	...	...	1	...	1	1	...	...	...	...	1	...	...	...	...	...	...	...	...	1
Conjunctivitis	...	...	...	1	...	1	1	...	1	...	...	...	...	...	...	...	...	...	...	...	1
Malingering	...	1	...	...	1	...	1	...	...	...	1	...	...	...	...	...	...	...	...	1	...
Nil	2	5	5	1	9	4	13	7	2	2	...	...	1	1	...	...	...	...	...	9	4

TABLE E.—*List of Deaths in the Medical Wards.*

	Males.		Females.
GENERAL DISEASES:			
Diphtheria	6	...	4
Enteric fever	5	...	0
Pyæmia	2	...	2
Pertussis	0	...	1
Morbilli	2	...	3
Syphilis	1	...	0
Marasmus	2	...	1
Tuberculosis	12	...	7
Leucocythæmia	0	...	1
Pernicious anæmia	0	...	1
DISEASES OF THE NERVOUS SYSTEM:			
Cerebral hæmorrhage	2	...	2
„ abscess	1	...	1
„ tumour	0	...	1
Meningitis	2	...	1
Infantile convulsions	1	...	0
Epilepsy	0	...	1
DISEASES OF THE EAR:			
Otitis media	0	...	1
DISEASES OF THE CIRCULATORY SYSTEM:			
Ulcerative endocarditis	2	...	1
Mitral disease	1	...	5
Aortic disease	4	...	1
Dilated heart	2	...	0
Pericarditis	0	...	1
Thoracic aneurysm	3	...	0
DISEASES OF THE RESPIRATORY SYSTEM:			
Chronic bronchitis	0	...	1
Lobar pneumonia	7	...	1
Lobular „	8	...	2
Emphysema	1	...	0
Phthisis	13	...	7
Empyema	1	...	0
DISEASES OF THE DIGESTIVE SYSTEM:			
Malignant disease of œsophagus	2	...	0
Gastric ulcer	1	...	0
Enteritis	0	...	1
Perforation of vermiform appendix	2	...	1
Diarrhœa	5	...	2

DISEASES OF THE DIGESTIVE SYSTEM—*continued.*	Males.		Females.
Ulcerative colitis	1	...	0
Malignant disease of intestine	2	...	0
Cirrhosis of liver	2	...	1
Hydatid of liver	0	...	2
Cirrhosis of pancreas	1	...	0
Acute peritonitis	1	...	0
Tubercular peritonitis	1	...	0
DISEASES OF THE SUPRARENAL BODIES:			
Addison's disease	2	...	0
DISEASES OF THE URINARY SYSTEM:			
Chronic nephritis:			
1. Large white kidney	3	...	1
2. Contracting granular kidney	5	...	2
Acute nephritis	0	...	1
Malignant disease of kidney	1	...	0
Urethral stricture	1	...	0
DISEASES OF THE GENERATIVE SYSTEM:			
Malignant disease of uterus	0	...	1
„ „ ovaries	0	...	2
Ovarian cyst	0	...	2
Total	108	...	61

TABLE F.—*Lobar Pneumonia.*

Seventy-one cases of lobar pneumonia were treated in the Hospital during the year 1894, which, added to the numbers during 1891, 1892, and 1893, makes a total of 311 cases. As usual, by far the greater number of admissions took place during the first six months of the year, 44 cases being admitted between January and June as against 26 during the latter half of the year.

Although a large number of cases of influenza were admitted during the year, none of the cases of lobar pneumonia directly followed on influenza, and pneumonia was least prevalent during the last three months of the year, when the greater number of cases of influenza were admitted. Twenty-three cases of influenza were admitted during these three months as against 20 during the previous nine months.

Ages.

	Under 5.	5—10.	10—20.	20—30.	30—40.	40—50.	50—60.	Over 60.
1891-93	32	24	46	60	37	27	10	6
1894	17	13	11	15	11	2	2	0
Total	49	37	57	75	48	29	12	6

Sex.

	Males.	Females.
1891-93	182	58
1894	52	19
Total	234	77

Numbers admitted in each Month.

	1891-93.	1894.	Total.		1891-93.	1894.	Total.
January	41	5	46	July	19	6	25
February	19	8	27	August	10	3	13
March	28	12	40	September	11	5	16
April	29	7	36	October	8	6	14
May	32	8	40	November	14	2	16
June	18	5	23	December	11	4	15

Seasons.

Cases admitted, in each group of three months.

	1891-93.	1894.	Total.		1891-93.	1894.	Total.
Jan. to March	88	25	113	July to Sept.	40	14	54
April to June	79	20	99	Oct. to Dec.	33	12	45

Cases admitted in two groups: six warmer and six colder months.

	1891-93.	1894.	Total.		1891-93.	1894.	Total.
April to Sept.	119	34	153	Oct. to March	121	37	158

There were 8 deaths among the 71 cases—7 males and 1 female—giving a percentage of 11·27 for the year 1894. This exceptionally low mortality was probably due to the large number of cases below the age of ten years. The average percentage of deaths for the four years 1891, 1892, 1893, 1894, was 19·29.

Ages at Death.

	Under 5.	5—10.	10—20.	20—30.	30—40.	40—50.	50—60.	Over 60.
1891-93	4	1	1	10	13	14	3	6
1894	0	0	1	2	4	0	1	0
Total	4	1	2	12	17	14	4	6

Percentage on total number of cases occurring at each age.

Under 5.	5—10.	10—20.	20—30.	30—40.	40—50.	50—60.	Over 60.
8·16	2·70	3·50	16·00	35·41	48·27	33·33	100·

Three cases and two deaths are recorded under the age of 12 months, giving a mortality of 66·66 per cent. The percentage of deaths between the ages of 1 and 5 years is 4·08, but one of the two casses occurring between these ages that died was complicated by diphtheria.

Deaths occurred on—

	1891-93.	1894.	Total.		1891-93.	1892.	Total.
2nd day	1	0	1 case	13th day	2	1	3 cases
3rd „	1	1	2 cases	14th „	2	0	2 „
4th „	4	1	5 „	15th „	1	0	1 case
5th „	4	1	5 „	17th „	2	0	2 cases
6th „	4	0	4 „	18th „	1	0	1 case
7th „	5	1	6 „	19th „	1	0	1 „
8th „	4	1	5 „	20th „	1	0	1 „
9th „	8	2	10 „	21st „	1	0	1 „
10th „	2	0	2 „	23rd „	1	0	1 „
11th „	3	0	3 „	47th „	1	0	1 „
12th „	3	0	3 „				

As to cause, the cases may be classified as follows:—

	1891-93.	1894.	Total.
Exposure to cold and wet	43	11	54
Infection or poisoning	26	9	35
Various (including traumatism)	8	6	14
No cause discovered	161	45	206

Excluding 57 deaths (16, 1891; 11, 1892; 23, 1893; 8, 1894) in which the patients' temperature was still febrile when death took place, and counting the cases when more than one crisis occurred by the number of these crises—

	1891-93.	1894.	Total.
Crisis took place in	160	62	222
Lysis „ „	42	14	56

Crisis occurring on—

	1891-93.	1894.	Total.		1891-93.	1894.	Total.
1st day	1	0	1 case	9th day	17	8	25 cases
2nd „	4	1	5 cases	10th „	8	7	15 „
3rd „	5	2	7 „	11th „	6	4	10 „
4th „	18	3	21 „	12th „	3	1	4 „
5th „	16	7	23 „	13th „	0	1	1 case
6th „	26	8	34 „	14th „	0	2	2 cases
7th „	33	9	42 „	15th „	1	0	1 case
8th „	23	7	30 „	17th „	1	2	3 cases

The duration of the fever in the cases which terminated by lysis was as follows:—

Days.	1891—93.	1894.	Total.	Days.	1891—93.	1894.	Total.
6	2	1	3	14	3	1	4
7	9	0	9	15	1	1	2
8	9	1	10	16	0	1	1
9	3	2	5	18	0	1	1
10	3	2	5	21	1	0	1
11	5	1	6	22	1	1	1
12	2	0	2	23	0	1	1
13	3	1	4				

In 89 cases (1891, 33; 1892, 18; 1893, 25; 1894, 13) herpes occurred; and in 59 of these the correspondence of the herpes with the lung affected was noted:—

The side of the herpes corresponded with affected lung in 37 cases.
„ „ „ „ „ did not correspond with affected lung in 15 cases.
Herpes was double and pneumonia double in 7 cases.

NOTE.—*For further particulars of Cases for* 1891, 1892, *and* 1893, *see the Report for* 1893.

SURGICAL REGISTRAR'S REPORT FOR THE YEAR 1894.

By PHILIP R. W. DE SANTI.

The total number of cases under treatment in the Surgical Wards during the past year was 1385, viz.:—

	Males.	Females.	Total.
Remaining in hospital December 31st, 1893 ...	39	31	70
Admitted during the year 1894	778	537	1315
	817	568	1385
Of these there were:			
Discharged, cured, or relieved	758	516	1274
Died	20	24	44
In hospital December 31st, 1894	31	36	67
	809	576	1385

The mortality during the year was 3·24 per cent. (The mortality from injuries during the year was 4·72 per cent. The mortality from general diseases during the year was 2·82 per cent.)

TABLE I.—*Abstract, showing* Diseases *in Classes, according to authorised nomenclature of the Royal College of Physicians.*

DISEASE.	Total.	Sex.		Age.								Result.	
		M.	F.	—5	—10	—20	—30	—40	—50	—60	+ 60	R.	D.
GENERAL DISEASES:													
Erysipelas	22	14	8	5	...	3	3	3	4	1	3	21	1
Pyæmia	1	1	...	...	...	...	...	...	...	1	...	...	1
Albuminoid disease	1	1	...	...	...	...	...	...	...	1	...	1	...
Gangrene	4	2	2	1	...	...	...	...	1	2	...	3	1
Osteitis deformans	1	...	1	...	...	...	...	...	...	1	...	1	...
Purpura hæmorrhagica	1	...	1	...	...	...	...	...	...	1	...	1	...
Ascites	1	...	1	...	...	...	...	1	...	...	...	1	...
Delirium tremens	1	1	...	...	...	...	...	...	1	...	...	1	...
Pregnant	1	...	1	...	...	...	...	1	...	...	...	1	...
Nil	2	2	...	1	...	1	...	...	...	...	...	2	...
Broncho-pneumonia	1	...	1	1	...	...	...	...	...	...	...	1	...
VENEREAL DISEASES:													
Gonorrhœa	2	1	1	...	...	...	1	1	...	...	...	2	...
Phimosis	8	8	...	...	...	5	...	3	...	...	...	8	...
Paraphimosis	6	6	...	1	...	1	4	...	...	...	...	6	...
Bubo	5	5	...	...	...	1	4	...	...	...	...	5	...
Syphilis	10	8	2	...	...	1	5	2	1	1	...	10	...
Congenital syphilis	3	...	3	2	1	...	...	...	...	...	...	3	...
Soft sores	4	4	...	...	...	1	2	1	...	...	...	4	...
Acute spreading phagedæna	1	1	...	...	...	1	...	...	...	...	...	1	...
LOCAL DISEASE:													
Tumours:													
Epithelioma of—													
Cheek	2	1	1	...	...	...	...	...	...	1	1	2	...
Floor of mouth	1	1	...	...	...	...	...	...	...	...	1	1	...
Glands of neck	2	2	...	...	...	...	...	...	1	1	...	2	...
Larynx	1	...	1	...	...	...	...	1	...	...	...	...	1
Lip	2	2	...	...	...	...	...	...	...	...	2	2	...
Tongue	6	4	2	...	...	...	1	...	1	2	2	6	...
Tonsils	1	1	...	...	...	...	...	...	...	...	1	...	1
Inside of cheek	1	1	...	...	...	...	...	...	...	1	...	1	...
Penis	3	3	...	...	...	...	...	1	1	...	1	3	...
Vulva	1	...	1	...	...	...	...	...	...	...	1	1	...
Leg	1	1	...	...	...	...	...	...	...	1	...	1	...
Rodent ulcer	3	2	1	...	...	...	...	...	...	...	3	3	...
Carcinoma:													
Breast	12	...	12	...	...	...	...	...	6	2	4	11	1
,, recurrent	2	...	2	...	...	...	...	...	2	...	...	2	...
Omentum	3	...	3	...	...	...	...	...	2	1	...	3	...
Sigmoid flexure	1	1	...	...	...	...	...	...	...	...	1	..	1
Rectum	11	6	5	...	...	...	1	...	1	4	5	10	1
Abdomen	1	1	...	...	...	...	...	...	1	...	...	1	...
Bladder	1	...	1	...	...	...	...	...	...	1	...	1	..

TABLE I.—*continued.*

DISEASE.	Total.	Sex.		Age.								Result.	
		M.	F.	—5	—10	—20	—30	—40	—50	—60	+60	R.	D.
LOCAL DISEASES—*contd.*—													
Sarcoma:													
Fibula (periosteal)	1	1	...	...	...	1	...	...	...	...	...	1	...
Forearm „	1	1	...	...	...	...	...	...	1	...	...	...	1
Femur „	1	1	...	...	...	...	...	1	...	...	...	1	...
Clavicle, scapula, and humerus	1	1	...	...	...	...	1	...	...	...	...	1	...
Superior maxilla	1	...	1	...	...	...	...	...	1	...	...	1	...
Abdomen	1	...	1	...	...	...	...	1	...	...	...	1	...
Breast	1	1	...	1	...	...	...	...	...	...	...	1	...
Pelvis	1	1	...	...	...	...	1	...	...	...	...	1	...
Neck	1	...	1	...	...	...	...	...	...	...	1	1	...
Submaxillary glands	1	1	...	...	...	...	...	...	1	...	...	1	...
Fibro-sarcoma of thigh	1	...	1	...	...	...	1	...	...	...	...	1	...
„ „ of ribs	1	...	1	...	...	...	1	...	...	...	...	1	...
Cysts:													
Dermoid, forehead	2	...	2	1	1	...	...	...	...	...	...	2	...
„ neck	1	1	...	...	...	...	...	...	1	...	...	1	...
„ umbilicus	1	1	...	...	1	...	...	...	...	...	...	1	...
Sebaceous	6	3	3	...	...	1	2	1	1	1	...	6	...
Serous (breast)	1	...	1	...	...	...	...	...	1	...	...	1	...
Cyst of groin	1	...	1	...	...	...	...	1	...	...	...	1	...
Suppurating properitoneal	1	...	1	...	...	...	...	1	...	...	...	1	...
Adeno-fibroma:													
Breast	1	...	1	...	...	...	1	...	...	...	...	1	...
Enchondroma:													
Humerus	1	1	...	...	...	1	...	...	...	...	...	1	...
Hand	2	2	...	1	1	...	...	...	...	...	...	2	...
Septum nasi	1	1	...	...	...	1	...	...	...	...	...	1	...
Exostosis:													
Orbit	1	1	...	...	...	...	...	...	1	...	...	1	...
Subungual toe	1	...	1	...	...	...	1	...	...	...	...	1	...
Fibroma:													
Epulis	1	...	1	...	...	...	...	1	...	...	...	1	...
Molluscum fibrosum	1	...	1	...	...	...	...	1	...	...	...	1	...
Lipoma:													
Shoulder	2	...	2	...	...	...	...	1	...	1	...	2	...
Arm	1	...	1	...	...	...	...	...	...	1	...	1	...
Nævo lipoma	1	...	1	...	...	1	...	...	...	...	...	1	...
Nævus:													
Capillary	1	...	1	1	...	...	...	...	...	...	...	1	...
Venous	4	3	1	3	1	...	...	...	...	...	...	4	...

TABLE I.—*continued.*

DISEASE.	Total.	Sex.		Age.								Result.	
		M.	F.	—5	—10	—20	—30	—40	—50	—60	+60	R.	D.
LOCAL DISEASES—*contd.*—													
Papilloma:													
Chin	1	...	1	...	...	...	...	...	...	...	1	1	...
Nose	1	1	...	...	...	...	...	...	...	...	1	1	...
Arms	1	1	...	...	...	...	1	...	...	...	...	1	...
Penis	1	1	...	...	...	...	...	...	...	...	1	1	...
Polypus:													
Nose	2	2	...	...	...	2	...	...	...	...	...	2	...
Naso-pharynx	1	1	...	...	...	1	...	...	...	...	...	1	...
Rectum	2	1	1	...	...	2	...	...	...	...	...	2	...
Thyroid:													
Bronchocele	1	...	1	...	...	...	...	1	...	...	...	1	...
Fibrosis of thyroid	1	...	1	...	...	...	1	...	...	...	...	1	...
MALFORMATIONS AND DEFORMITIES:													
Cleft palate	3	2	1	2	1	...	...	...	...	...	...	3	...
Hare lip	5	3	2	5	...	...	...	...	...	...	...	5	...
Genu valgum	5	1	4	1	3	1	...	...	...	...	...	5	...
Hammer toe	1	1	...	...	...	...	1	...	...	...	...	1	...
Hallux valgus	1	1	...	...	...	...	...	...	...	1	...	1	...
Dupuytren's contraction	1	1	...	...	...	...	...	...	...	...	1	1	...
Phimosis	21	21	...	8	6	5	2	...	...	...	...	21	...
Congenital contraction of meatus urinarius	1	1	...	...	...	...	...	...	1	...	...	1	...
Spine:													
Lateral curvature	2	...	2	...	...	2	...	...	...	...	...	2	...
Spina bifida	1	1	...	1	...	...	...	...	...	...	...	1	...
Talipes:													
Varus	3	1	2	2	1	...	...	...	...	...	...	3	...
Planus	5	2	3	...	...	3	...	1	1	...	...	5	...
Valgus	4	2	2	...	...	2	2	...	...	...	...	4	...
Cavus	1	...	1	...	...	1	...	...	...	...	...	1	...
DISEASES OF THE NERVOUS SYSTEM:													
Epilepsy after head injury	1	1	...	...	...	...	1	...	...	...	...	1	...
Infantile paralysis	1	...	1	...	1	...	...	...	...	...	...	1	...
Neuralgia, muscular	1	...	1	...	...	...	...	1	...	...	...	1	...
„ sciatic	3	3	...	...	...	...	1	...	...	...	2	3	...
Gumma of brain	1	1	...	...	...	1	...	...	...	...	...	1	...
Nerve deafness	1	...	1	...	...	1	...	...	...	...	...	1	...
Paraplegia	1	...	1	...	...	...	...	...	1	...	...	1	...
Herpes zona	1	1	...	...	...	...	...	...	...	1	...	1	...

TABLE I.—*continued.*

DISEASE.	Total.	Sex.		Age.								Result.	
		M.	F.	—5	—10	—20	—30	—40	—50	—60	+60	R.	D.
DISEASES OF THE EYE:													
Conjunctivitis	3	2	1	...	2	...	...	...	...	...	1	3	...
Keratitis	2	1	1	1	1	...	...	...	...	...	...	2	...
Interstitial keratitis	1	...	1	...	1	...	...	...	...	...	...	1	...
Ophthalmia	2	...	2	1	1	...	...	...	...	...	...	2	...
Hard cataract	4	3	1	...	...	...	...	...	...	1	3	4	...
Glaucoma	2	1	1	...	...	...	...	...	...	1	1	2	...
Panophthalmitis	1	1	...	...	...	...	...	...	...	...	1	1	...
Proptosis	1	...	1	...	...	...	...	1	...	...	...	1	...
Internal squint	1	...	1	...	1	...	...	...	...	...	...	1	...
Wound of cornea	1	...	1	1	...	...	...	...	...	...	...	1	...
DISEASES OF THE EYELIDS:													
Rodent ulcer	1	...	1	...	...	...	...	...	...	1	...	1	...
Hæmatoma	1	1	...	1	...	...	...	...	...	...	...	1	...
DISEASES OF THE EAR:													
Otorrhœa and otitis	4	2	2	...	...	1	1	1	...	1	...	4	...
Mastoid disease	5	...	5	1	1	1	1	1	...	...	...	4	1
DISEASES OF THE NOSE:													
Epistaxis	1	1	...	...	...	...	...	...	...	1	...	1	...
Syphilis	1	1	...	...	...	..	...	1	...	...	...	1	...
Adhesions between septum and inferior turbinate	1	...	1	...	...	...	1	...	...	...	...	1	...
Deviated septum	5	3	2	...	1	2	2	...	...	...	...	5	...
Hæmatoma of septum	1	1	...	...	...	1	...	...	...	...	...	1	...
Ecchondroma of septum	1	1	...	...	...	1	...	...	...	...	...	1	...
Rodent ulcer	2	2	...	...	...	...	...	...	...	...	2	2	...
Empyema of antrum	1	...	1	...	...	...	...	...	1	...	...	1	...
DISEASES OF THE LARYNX AND TRACHEA:													
Laryngitis	1	1	...	1	...	...	...	...	...	...	...	1	...
Œdema	2	...	2	2	...	...	...	...	...	...	...	2	...
Syphilis	1	1	...	...	...	...	...	1	...	...	...	1	...
Tubercular laryngitis	2	1	1	...	...	...	1	...	1	...	...	1	1
Chronic stenosis of larynx	1	1	...	...	...	...	...	...	...	1	...	1	...
DISEASES OF THORAX:													
Empyema	2	2	...	...	1	...	...	...	...	1	...	2	...
DISEASES OF THE VASCULAR SYSTEM:													
Arteries:													
Pathological popliteal aneurysm	1	1	...	...	...	...	...	1	...	...	...	1	...
Secondary hæmorrhage—scalp	1	1	...	...	...	...	...	...	1	...	...	1	...

TABLE I.—*continued.*

DISEASE.	Total.	Sex.		Age.								Result.	
		M.	F.	—5	—10	—20	—30	—40	—50	—60	+60	R.	D.
DISEASES OF THE VASCULAR SYSTEM—*continued*—													
Veins :													
Phlebitis and thrombosis...	8	2	6	...	...	...	2	1	4	1	...	8	...
Varicose veins, leg	22	12	10	..	...	1	6	9	5	1	...	22	...
„ „ forearm ...	1	1	...	...	...	1	...	...	...	...	...	1	...
DISEASES OF THE LYMPHATIC SYSTEM :													
Glands, inflamed and suppurating	14	10	4	1	3	3	2	5	...	...	...	14	...
Tubercular glands.....	9	3	6	...	...	5	4	...	...	..	...	9	...
Lymphangitis	1	1	...	...	1	...	...	...	...	...	...	1	...
Lymphadenitis	3	1	2	...	...	1	1	1	...	...	...	3	...
DISEASES OF THE DIGESTIVE SYSTEM :													
Tongue :													
Ichthyosis	1	1	...	...	...	...	...	...	1	...	...	1	...
Syphilitic ulcer.....	1	1	...	...	...	...	...	...	...	1	...	1	...
Tonsils :													
Epithelioma	1	1	...	...	...	...	...	...	...	...	1	...	1
Suppuration	1	1	...	1	...	...	...	...	...	...	...	1	...
Hypertrophy	1	...	1	...	...	1	...	...	...	...	...	1	...
Parotid duct fistula	4	2	2	...	2	2	...	...	...	...	...	4	...
Pharynx :													
Adenoid vegetations.....	39	16	23	6	15	17	1	...	...	...	...	39	...
Syphilitic ulceration (congenital)	1	1	...	...	1	...	...	...	...	...	...	1	...
Œsophagus, malignant disease of	2	2	...	...	...	...	...	1	...	1	...	1	1
Intestines :													
Hernia :													
Reducible—Inguinal ...	22	18	4	6	3	3	5	2	1	2	...	22	...
Irreducible—Inguinal ...	7	7	...	...	1	1	1	2	...	2	...	7	...
Obstructed umbilical	1	...	1	...	...	...	...	...	1	...	...	1	...
Strangulated :													
Inguinal	8	7	1	...	...	2	3	1	...	1	1	6	1
Femoral	8	...	8	...	...	...	1	1	2	1	3	5	3
Umbilical	2	...	2	...	...	...	...	...	...	2	...	1	1
Intestinal obstruction (acute)	1	1	...	...	1	...	...	...	...	...	1	1	...
„ „ (chronic)	2	1	1	...	...	...	...	1	...	...	1	2	...

TABLE I.—*continued.*

DISEASE.	Total.	Sex.		Age.								Result.	
		M.	F.	—5	—10	—20	—30	—40	—50	—60	+60	R.	D.
DISEASES OF THE DIGESTIVE SYSTEM—*continued*—													
Constipation	2	...	2	...	...	1	...	...	...	...	1	2	...
Tubercular peritonitis	3	...	3	1	1	...	...	...	1	...	...	3	...
Perforative appendicitis	1	...	1	...	1	...	...	...	...	...	...	...	1
Typhlitis	1	...	1	...	...	1	...	...	...	...	...	1	...
Carcinoma of gall-bladder	1	...	1	...	...	...	...	...	...	1	...	...	1
Gall-stones	1	1	...	...	...	...	...	...	1	...	...	1	...
Carcinoma of pancreas	1	1	...	...	...	...	...	...	...	...	1	...	1
Enlargement of liver	1	...	1	...	...	...	...	...	...	1	...	1	...
Rectum and Anus:													
Anal fissure	3	2	1	...	...	2	1	...	...	...	...	3	...
,, prolapse	2	...	2	...	...	...	1	1	...	...	...	2	...
Hæmorrhoids	40	21	19	...	...	...	5	9	17	7	2	40	...
Fistula in ano	30	22	8	1	...	1	6	11	8	4	...	29	1
Multiple polypi of rectum.	1	1	...	...	...	1	...	...	...	...	...	1	...
DISEASES OF GENITO-URINARY ORGANS:													
Bladder:													
Calculus	3	3	...	...	...	1	...	...	...	1	1	2	1
Cystitis	5	4	1	...	...	1	2	...	...	...	2	4	1
Kidney:													
Calculus	4	4	...	...	...	...	2	2	...	...	...	4	...
Pyonephrosis	3	...	3	...	...	...	1	1	...	...	1	3	...
Acute nephritis	1	1	...	...	...	...	1	...	...	...	...	1	...
Renal colic	1	...	1	...	...	...	...	...	...	...	1	1	...
Chronic renal	1	1	...	...	...	...	...	1	...	...	...	1	...
Kidney:													
Tumour (?)	1	...	1	...	...	...	...	...	...	1	...	1	...
Pyuria	2	...	2	...	...	1	...	...	...	1	...	2	...
Penis and prepuce:													
Paraphimosis	1	1	...	...	...	1	...	...	...	...	...	1	...
Penile fistula	1	1	...	...	...	...	...	...	1	...	...	1	...
Balanitis	1	1	...	...	...	...	1	...	...	...	...	1	...
Ulceration of penis	1	1	...	...	...	...	1	...	...	...	...	1	...
Prostate:													
Enlarged	5	5	...	...	...	...	...	...	...	1	4	5	...
Spermatic cord:													
Encysted hydrocele	1	1	...	...	...	1	...	...	...	...	...	1	...
Varicocele	8	8	...	...	...	4	4	...	...	...	...	8	...
Testes:													
Orchitis and epididymitis	6	6	...	...	1	1	1	2	...	...	1	6	...
Retained	6	6	...	...	1	4	1	...	...	...	...	6	...
Tubercular	1	1	...	...	...	...	...	1	...	...	...	1	...

TABLE I.—*continued.*

DISEASE.	Total.	Sex.		Age.								Result.	
		M.	F.	—5	—10	—20	—30	—40	—50	—60	+60	R.	D.
DISEASES OF GENITO-URINARY ORGANS—*contd.*—													
Tunica vaginalis:													
Hæmatocele	3	3	...	...	...	...	1	...	...	2	...	3	...
Hydrocele	10	10	...	5	1	...	1	...	...	1	2	10	...
Urethra:													
Fistula	1	1	...	...	...	...	...	...	1	...	...	1	...
Stricture	13	13	...	...	...	...	...	5	5	2	1	13	...
Foreign body in	1	1	...	...	...	...	...	...	...	1	...	1	...
Urine and urination:													
Hæmaturia	4	4	...	...	...	2	1	...	...	...	1	4	...
Incontinence	3	...	3	...	1	2	...	...	...	...	...	3	...
Pelvic cellulitis and vaginal abscess	1	...	1	...	...	1	...	...	...	...	...	1	...
Inflammation and ulceration of vulva	1	...	1	1	...	...	...	...	...	...	...	1	...
Breast:													
Interstitial mastitis	2	...	2	...	...	...	1	1	...	...	...	2	...
Vaccinia pustules of nipple	1	...	1	...	...	...	...	1	...	...	...	1	...
Abscess	12	...	12	...	...	2	4	4	2	...	...	11	1
Needle in breast	1	...	1	...	...	...	1	...	...	...	...	1	...
DISEASES OF ORGANS OF LOCOMOTION:													
Caries:													
Spine	18	10	8	4	7	4	2	1	...	...	...	16	2
Tibia	4	...	4	1	...	2	...	1	...	...	...	4	...
Metacarpus	4	3	1	1	1	1	...	...	...	...	1	3	1
Metatarsus	2	2	...	...	...	2	...	...	...	...	...	2	...
Skull	1	1	...	1	...	...	...	...	...	...	...	1	...
Humerus	1	...	1	...	...	1	...	...	...	...	...	1	...
Clavicle	1	1	...	...	...	1	...	...	...	...	...	1	...
Necrosis:													
Lower Jaw	4	1	3	...	...	...	2	2	...	...	...	4	...
Skull	4	1	3	...	1	...	1	1	1	...	...	4	...
Scapula	1	...	1	...	...	1	...	...	...	...	...	1	...
Ethmoid and nasal bones	1	1	...	...	...	...	...	1	...	...	...	1	...
Toe	1	...	1	...	...	...	...	1	...	...	...	1	...
Carpus	1	...	1	...	...	...	...	...	...	1	...	1	...
Ulna	2	1	1	...	...	2	...	...	...	...	...	2	...
Clavicle	1	1	...	...	...	1	...	...	...	...	...	1	...
Tibia	2	...	2	1	...	...	1	...	...	...	...	2	...
Phalanges	1	...	1	...	...	...	...	...	...	1	...	1	...

TABLE I.—*continued.*

DISEASE.	Total.	Sex.		Age.								Result.	
		M.	F.	—5	—10	—20	—30	—40	—50	—60	+ 60	R.	D.
DISEASES OF ORGANS OF LOCOMOTION—*contd.*—													
Periostitis and ostitis:													
Acute infective:													
Of femur and clavicle	1	1	...	...	...	1	...	...	...	...	...	1	...
Of tibia	2	1	1	1	...	1	...	...	...	...	...	2	...
Of os calcis	2	1	1	...	...	1	...	1	...	...	...	2	...
Of lower jaw	1	...	1	1	...	...	...	...	...	...	...	...	1
Acute traumatic of fibula	1	1	...	...	1	...	...	...	...	...	...	1	...
" " of tibia	3	2	1	...	...	2	...	...	...	1	...	3	...
Chronic periostitis:													
Neck of femur	1	1	...	...	...	1	...	...	...	...	...	1	...
Tibia and fibula	4	2	2	...	1	3	...	...	...	...	...	4	...
Metatarsus	1	...	1	...	...	1	...	...	...	...	...	1	...
Knee joint	1	1	...	...	...	...	...	1	...	...	...	1	...
Syphilitic periostitis	4	...	4	...	2	...	...	2	...	...	...	4	...
Rickets	1	...	1	...	1	...	...	...	...	...	...	1	...
DISEASES OF JOINTS:													
Ankylosis, fibrous:													
Shoulder and elbow	1	...	1	...	...	...	...	...	1	...	...	1	...
Shoulder	1	1	...	...	...	...	...	...	1	...	...	1	...
Knee	5	1	4	1	...	1	1	1	...	...	1	4	1
Charcot's disease	1	...	1	...	...	...	...	1	...	...	...	1	...
Chronic Strumous or Tubercular Disease:													
Ankle	3	1	2	...	1	1	1	...	...	...	...	3	...
Elbow	3	3	...	1	1	...	1	...	...	...	...	3	...
Hip	10	5	5	2	4	2	2	...	...	...	...	10	...
Knee	11	5	6	5	1	3	...	1	...	1	...	10	1
Shoulder	1	1	...	...	...	...	...	1	...	...	...	1	...
Tarsus	1	1	...	...	...	1	...	...	...	...	..	1	...
Simple hypertrophy of synovial membrane of knee joint	1	...	1	...	...	...	...	1	...	...	...	1	...
Contracted knee	3	1	2	...	...	1	1	1	...	...	...	3	...
Hæmathrosis knee	2	2	...	...	...	...	...	1	1	...	...	2	...
Chronic arthritis, inter phalangeal joint of thumb	1	...	1	...	...	...	...	...	1	...	...	1	...
Osteo-arthritis	1	...	1	...	...	...	...	...	1	...	...	1	...
Gonorrhœal arthritis	1	1	...	...	...	...	1	...	...	...	...	1	...
Synovitis, acute or subacute:													
Knee	15	8	7	1	...	4	4	5	1	...	...	15	...
Ankle	6	5	1	...	...	2	1	2	1	...	...	6	...
Elbow	1	1	...	...	...	...	...	...	...	1	...	1	...
Chronic, of knee	1	1	...	...	...	...	...	1	...	...	...	1	...

TABLE I.—*continued.*

DISEASE.	Total.	Sex.		Age.								Result.	
		M.	F.	—5	—10	—20	—30	—40	—50	—60	+60	R.	D.
DISEASES OF JOINTS—*continued*—													
Suppurative arthritis:													
Knee	2	1	1	...	...	...	1	...	1	...	...	1	1
Metatarso-phalangeal joint, big toe	1	1	...	...	...	...	1	...	...	...	...	1	...
Internal derangement, knee joint	1	1	...	...	...	...	1	...	...	...	...	1	..
DISEASES OF THE BURSÆ, FASCIÆ, AND TENDONS:													
Simple enlargement:													
Bursa over trochanter major	1	1	...	...	...	...	...	...	..	1	...	1	...
Bursa patellæ	4	1	3	...	...	2	1	...	1	...	...	4	...
Bursa of olecranon	1	1	...	...	...	...	...	1	...	...	...	1	...
Bursa of popliteal space	1	...	1	...	...	...	1	...	...	...	...	1	...
Chronic solid enlargement	1	...	1	...	...	...	...	...	1	...	...	1	...
Inflamed and suppurating bursæ	9	4	5	...	...	2	3	2	2	...	...	9	...
Compound ganglion of palm	1	1	...	...	...	...	1	...	...	...	...	1	...
Suppurating ganglion of finger	1	1	...	...	...	...	...	1	...	...	...	1	...
Teno synovitis:													
Ankle	1	...	1	...	...	...	...	1	...	...	...	1	...
Tubercular, sole of foot	1	...	1	...	...	...	...	1	...	...	...	1	...
DISEASES OF THE CELLULAR TISSUE.—ABSCESS, INFLAMMATION AND SUPPURATION:													
Acute abscess:													
Scalp	6	2	4	5	1	...	...	...	...	...	...	6	...
Dental	6	4	2	2	1	2	1	...	...	...	...	6	...
Face	1	1	...	...	...	...	...	1	...	...	...	1	...
Parotid	1	...	1	...	...	...	...	1	...	...	...	1	...
Neck	3	1	2	1	...	1	1	...	...	...	...	3	...
Supracondyloid & axillary	2	2	...	...	...	...	...	1	1	...	...	2	...
Arm	1	1	...	...	...	...	...	...	1	...	...	1	...
Forearm	1	1	...	...	...	...	...	1	...	...	...	1	...
Iliac	1	1	...	...	...	1	...	...	...	...	...	1	...
Inguinal	1	1	...	1	...	...	...	...	...	...	...	1	...
Buttock	1	1	...	...	...	...	1	...	...	...	...	1	...
Thigh	1	1	...	1	...	...	...	...	...	...	...	1	...
Ankle	1	1	...	...	...	...	...	1	...	...	...	1	...
Foot	2	1	1	...	...	...	...	1	...	1	...	2	...

TABLE I.—*continued.*

DISEASE.	Total.	Sex.		Age.								Result.	
		M.	F.	—5	—10	—20	—30	—40	—50	—60	+60	R.	D.
DISEASES OF THE CELLULAR TISSUE—*continued*—													
Chronic abscess :													
Dorsal region	1	...	1	1	...	...	...	...	...	...	...	1	...
Ischio rectal	8	8	...	1	...	2	4	1	...	...	...	8	...
Over lower jaw	2	1	1	1	...	...	1	...	...	...	...	2	...
Inguinal region	13	7	6	1	2	4	4	1	1	...	...	13	...
Neck	26	10	16	4	4	12	1	3	2	...	...	26	...
Axilla	5	2	3	1	...	2	1	...	...	1	...	5	...
Toe	1	1	...	...	...	1	...	...	...	...	...	1	...
Temporal region and head	4	4	...	3	1	...	...	...	...	...	...	4	...
Thigh	8	6	2	...	2	5	...	...	1	...	...	8	...
Scrotal and perineal	6	6	...	...	1	1	...	...	1	1	2	6	...
Foot	2	2	...	...	...	2	...	...	...	...	...	2	...
Hand	4	2	2	...	...	1	1	2	...	...	...	4	...
Lumbar	3	2	1	...	...	1	...	1	1	...	...	3	...
Iliac	3	1	2	...	...	1	2	...	...	...	...	3	...
Gluteal	1	...	1	...	...	...	1	...	...	...	...	1	...
Popliteal space	1	1	...	...	...	...	...	...	1	...	...	1	...
Arm	1	...	1	...	...	...	...	...	1	...	...	1	...
Psoas	3	1	2	...	1	1	...	...	...	1	...	3	...
Whitlow	11	5	6	...	...	3	1	2	...	3	2	11	...
Cellulitis :													
Scalp	1	1	...	...	...	...	...	...	...	1	...	1	...
Face	1	...	1	...	1	...	...	...	...	...	...	1	...
Lip	1	1	...	...	...	...	1	...	...	...	...	1	...
Arm	3	2	1	1	...	...	1	...	1	...	...	3	...
Elbow	1	1	...	...	...	...	...	...	1	...	...	1	...
Forearm	7	5	2	...	...	...	1	3	2	...	1	7	...
Hand	2	1	1	1	...	...	1	...	...	...	...	2	...
Ankle	1	1	...	...	...	1	...	...	...	...	...	1	...
Foot	1	1	...	...	...	...	...	1	...	...	...	1	...
Carbuncle, neck	2	1	1	...	...	...	...	...	2	...	...	2	...
Bed sores	1	1	...	...	...	...	...	...	1	...	...	1	...
Furunculus	1	...	1	1	...	...	...	...	...	...	...	1	...
Sinus, about :													
Neck	1	1	...	...	...	...	1	...	...	...	...	1	...
Lower jaw	2	2	...	...	1	...	1	...	...	...	...	2	...
Axilla	1	...	1	...	...	...	1	...	...	...	...	1	...
Arm	1	1	...	...	...	...	...	1	...	...	...	1	...
Chest (old empyema)	4	2	2	...	...	...	...	2	...	2	...	4	...
Groin	4	2	2	...	2	...	...	2	...	...	...	4	...
Hip	1	...	1	...	1	...	..	...	...	...	...	1	...
Knee	2	1	1	1	...	...	1	...	...	...	...	2	...
Foot	2	2	...	...	...	1	...	1	...	...	...	2	...
Finger	1	1	...	...	1	...	...	...	...	...	...	1	...

TABLE I.—*continued.*

DISEASE.	Total.	Sex.		Age.								Result.	
		M.	F.	—5	—10	—20	—30	—40	—50	—60	+ 60	R.	D.
DISEASES OF CUTANEOUS SYSTEM:													
Ulcers:													
I. Simple, of Heel	1	1	...	...	1	...	...	...	...	...	...	1	...
„ Leg	2	1	1	...	...	...	1	...	...	...	1	2	...
„ Breast	1	...	1	...	...	...	1	...	...	...	...	1	...
II. Inflamed	1	1	...	...	...	...	...	1	...	...	...	1	...
III. Varicose	11	9	2	...	...	...	2	2	3	2	2	11	...
IV. Tubercular:													
Neck	1	...	1	...	...	1	...	...	...	...	...	1	...
Arms and legs	1	...	1	...	...	...	...	...	1	...	...	1	...
Fingers and hand	2	...	2	...	1	...	1	...	...	...	...	2	...
Forearm	1	...	1	...	...	1	...	...	...	...	...	1	...
Multiple	1	1	...	1	...	...	...	...	...	...	...	1	...
Wrist and arm	1	...	1	...	1	...	...	...	...	...	...	1	...
Amputation stump	1	1	...	...	...	...	...	1	...	...	...	1	...
V. Traumatic—													
Heel	1	1	...	...	...	...	...	...	...	1	...	1	...
Leg	4	4	...	...	...	1	1	2	...	...	...	4	...
VI. Syphilitic	7	3	4	...	...	...	2	3	1	...	1	7	...
VII. Phagedænic	2	1	1	1	...	...	1	...	...	...	...	2	...
VIII. Malignant	1	1	...	...	...	...	...	...	...	1	...	1	...
Nails, ingrowing	3	2	1	...	...	1	2	...	...	...	...	3	...
Lupus:													
Face	11	1	10	...	1	6	4	...	...	...	...	11	...
Lower extremity	1	...	1	...	...	1	...	...	...	...	...	1	...
Scars, neuralgic	3	...	3	...	1	...	1	...	1	...	...	3	...
Bunions, suppurating	4	3	1	...	...	...	2	1	1	...	...	4	...
Frost bite	1	1	...	...	...	1	...	...	...	...	...	1	...
Psoriasis	1	1	...	...	...	...	1	...	...	...	...	1	...
Eczema	2	1	1	...	...	...	...	1	1	...	...	2	...
Oxalic acid poisoning	1	1	...	...	...	...	1	...	...	...	...	1	...
Vitriol poisoning	1	1	...	1	...	...	...	...	...	...	...	...	1

TABLE II.—*Abstract, showing* Injuries *in Classes, according to authorised nomenclature of the Royal College of Physicians.*

GENERAL INJURIES.	Total.	Sex.		Age.								Result.	
		M.	F.	—5	—10	—20	—30	—40	—50	—60	+60	R.	D.
GENERAL INJURIES:													
Burns	10	2	8	1	1	2	2	...	2	...	2	6	4
Scalds	2	1	1	...	1	...	...	...	...	...	1	2	...
General contusions	1	1	...	...	...	...	...	...	...	...	1	1	...
LOCAL INJURIES:													
Injuries of head and face:													
Scalp wounds	16	8	8	2	...	3	4	2	3	1	1	16	...
Hæmatoma of scalp	1	...	1	...	1	...	...	...	...	...	...	1	...
Fractures:													
Skull compound (vertex)	1	1	...	...	...	...	...	1	...	...	...	1	...
„ „ (base)	6	3	3	...	1	...	1	1	...	3	...	4	2
Cerebral hæmorrhage	1	...	1	...	...	...	...	...	...	...	1	...	1
Concussion of brain	26	18	8	8	9	4	1	1	1	2	...	26	...
Wound of face	3	2	1	...	...	...	...	3	...	...	...	3	...
Contusions	5	1	4	...	...	...	2	2	...	1	...	5	...
Fracture of nasal bones	1	1	...	...	...	...	...	1	...	...	...	1	...
Compound fracture upper jaw	1	1	...	...	...	1	...	...	...	...	...	1	...
„ „ lower jaw	4	1	3	...	...	1	1	...	2	...	...	4	...
Lacerated wounds:													
Nose	1	1	...	...	...	...	...	1	...	...	...	1	...
Soft palate	1	1	...	...	1	...	...	...	...	...	...	1	...
Tongue	2	1	1	1	1	...	...	...	...	...	...	2	...
Eyelid	1	1	...	...	...	...	1	...	...	...	...	1	...
Injuries of neck:													
Cut throat	2	2	...	...	...	...	...	...	1	1	...	2	...
Fracture dislocation spine	1	1	...	...	...	...	1	...	...	...	...	...	1
Bruising of cord	1	1	...	...	...	1	...	...	...	...	...	...	1
Injuries of the thorax:													
Fracture of ribs (simple)	6	4	2	...	...	...	...	1	...	2	3	6	...
Crush of sternum	1	1	...	...	...	...	1	...	...	...	...	1	...
Contusions	1	...	1	...	...	...	...	1	...	...	...	1	...
Injuries of back:													
Contusions	7	5	2	...	1	3	...	2	...	1	...	7	...
Sprains	1	...	1	...	...	...	...	...	...	...	1	1	...
Injury to back (? lateral sclerosis)	1	1	...	...	...	...	1	...	...	...	...	1	...
Injuries of abdomen:													
Wound of parietes	1	...	1	...	...	...	...	1	...	...	...	1	...
Partial rupture rectus	1	1	...	...	...	...	1	...	...	...	...	1	...
Rupture of kidney	1	1	...	...	...	...	...	...	...	...	1	...	1
Contusions of kidney	2	2	...	...	...	...	2	...	...	...	...	2	...

TABLE II.—*continued.*

GENERAL INJURIES.	Total.	Sex.		Age.								Result.	
		M.	F.	—5	—10	—20	—30	—40	—50	—60	+60	R.	D.
LOCAL INJURIES—*contd.*—													
Injuries of pelvis and generative organs:													
Wound of scrotum and penis	1	1	...	...	1	...	...	...	...	...	...	1	...
Wound of labium	1	...	1	...	...	...	...	...	1	...	...	1	...
Fracture of pelvis	1	1	...	...	...	...	...	...	...	...	1	...	1
Injuries of upper extremities:													
Contusions	2	1	1	...	...	...	...	...	...	...	2	2	...
Wounds, incised	3	1	2	1	...	...	1	...	1	...	...	3	...
„ lacerated	5	5	...	1	1	1	...	...	2	...	...	5	...
Crushed fingers	8	6	2	1	1	3	1	1	1	...	...	8	...
Sprains	2	...	2	...	...	...	2	...	...	...	...	2	...
Simple fractures:													
Olecranon	1	1	...	...	...	...	1	...	...	...	...	1	...
Humerus	3	2	1	...	2	...	...	...	1	...	1	2	1
Radius and ulna	1	1	...	...	1	...	...	...	...	...	...	1	...
Compound fracture:													
Humerus	2	2	...	...	1	...	1	...	...	...	...	2	...
Ununited fracture:													
Clavicle	1	...	1	...	...	1	...	...	...	...	...	1	...
Humerus	2	2	...	...	...	...	2	...	...	...	...	2	...
Vicious union, ulna	1	1	...	...	...	1	...	...	...	...	...	1	...
Dislocation (simple):													
Radius and ulna	2	2	...	...	...	...	...	...	1	1	...	2	...
Radius	1	1	...	...	...	...	...	...	...	1	...	1	...
INJURIES OF LOWER EXTREMITY:													
Contusions:													
Ankle	3	3	...	...	...	1	2	...	...	...	...	3	...
Hip	4	2	2	1	...	...	1	...	...	...	2	4	...
Leg	6	3	3	2	1	1	...	1	1	...	...	6	...
Sacrum	1	1	...	...	...	...	...	...	...	1	...	1	...
Division tendo achillis	1	1	...	...	...	...	1	...	...	...	...	1	...
Hæmatoma:													
Thigh	1	...	1	1	...	...	...	...	...	...	...	1	...
Popliteal space	1	1	...	...	...	...	...	...	...	...	1	1	...
Knee	1	...	1	...	...	...	...	...	...	1	...	1	...
Iliac fossa	1	1	...	...	...	1	...	...	...	...	...	1	...

TABLE II.—*continued.*

GENERAL INJURIES.	Total.	Sex.		Age.								Result.	
		M.	F.	−5	−10	−20	−30	−40	−50	−60	+60	R.	D.
INJURIES OF LOWER EXTREMITY—*continued*—													
Wounds:													
Incised	2	1	1	...	...	...	2	...	...	...	...	2	...
Punctured	1	1	...	...	1	...	...	...	...	...	...	1	...
Lacerated	6	5	1	2	...	2	...	1	...	1	...	6	...
Fracture, Simple:													
Tibia and fibula	23	16	7	...	1	1	5	6	5	1	4	23	...
Tibia	6	5	1	...	2	1	1	...	2	...	...	6	...
Femur	16	10	6	4	3	1	1	1	1	2	3	16	...
Fibula	8	5	3	...	1	1	...	2	3	...	1	8	...
Patella	2	1	1	...	...	...	...	2	...	...	...	2	...
Intracapsular of femur	5	1	4	...	...	...	...	...	1	1	3	5	...
Greenstick of tibia	2	2	...	...	2	...	...	...	...	...	...	2	...
„ „ femur	2	1	1	...	2	...	...	...	...	...	...	2	...
Vicious union of femur	1	1	...	...	1	...	...	...	...	...	...	1	...
Compound fracture of tibia and fibula	1	1	...	...	...	...	1	...	...	...	...	1	...
Dislocation of hip joint	1	1	...	...	1	...	...	...	...	...	...	1	...
„ „ metatarso-phalangeal joint	1	1	...	...	...	1	...	...	...	...	...	1	...
Sprains:													
Ankle	11	10	1	...	...	1	2	2	6	...	...	11	...
Thigh	1	1	...	...	...	...	...	...	1	...	...	1	...

TABLE III.—*Surgical operations classified according to authorised nomenclature.*

OPERATIONS.	Total.	Sex.		Age.							Result.		Remarks.
		M.	F.	—5	—10	—20	—30	—40	—50	—60	+60	R.	D.	
REMOVAL OF TUMOURS:														
Amputation of breast for cancer	11	...	11	...	...	...	...	...	5	3	3	10	1	Axillary glands removed in 7 cases. 1 died of secondary growths (*vide* abstracts).
„ „ serocystic disease	1	1	...	1	...	...	...	...	...	...	...	1	...	*Vide* abstracts.
„ „ duct cancer	1	...	1	...	...	...	...	...	...	1	...	1	...	„ „
Removal of recurrent growth:														
From mammary region	2	...	2	...	...	...	...	...	2	...	...	2	...	
„ cheek	1	1	...	...	...	...	...	...	...	1	...	1	...	
Removal of cancer (epithelioma):														
Of face	1	...	1	...	...	...	...	...	...	...	1	1	...	Excision.
„ lip	2	2	...	...	...	...	...	...	...	...	2	2	...	Excision.
„ tongue	6	4	2	...	...	...	1	...	1	2	2	6	...	1 by Kocher's method (*vide* abstracts). 4 by Whitehead's method. 1 small local excision.
„ penis	3	3	...	...	...	...	...	1	1	...	1	3	...	Amputation of penis.
„ rectum	1	...	1	...	...	...	1	...	...	...	...	1	...	Excision of rectum.
„ vulva	1	...	1	...	...	...	...	...	...	...	1	1	...	Excision.
„ leg	1	1	...	...	...	...	...	...	...	1	...	1	...	Amputation through knee joint.
Removal of rodent ulcer	2	2	...	...	...	...	...	...	...	...	2	2	...	Excision.
Removal ichthyotic patch tongue	1	1	...	...	...	...	...	1	...	...	...	1	...	Partial excision of tongue.
Sarcoma of fibula	1	1	...	...	...	...	1	...	...	...	...	1	...	Amputation lower third of thigh.
„ upper jaw	1	...	1	...	...	...	...	...	...	1	...	1	...	Excision of upper jaw.
„ forearm (recurrent)	1	1	...	...	...	...	...	...	1	...	...	...	1	Amputation arm upper third; died of secondary growths.
„ submaxillary glands (recurrent)	1	1	...	...	...	...	...	...	1	...	...	1	...	Sarcoma was originally primary in submaxillary glands.
„ clavicle, humerus, and scapula	1	1	...	...	...	...	1	...	...	...	...	1	...	Amputation of arm and excision of scapula and clavicle. Ligature of sub-clavian artery and vein, then at same operation, removal of whole of upper extremity.

Fibro-sarcoma	2	...	2	...	...	...	2	...	...	...	...	2	...	1 skin apex Scarpa's triangle. 1 from ribs.
Removal of fibrous epulis	1	...	1	...	...	...	...	1	...	...	...	1	...	Excision.
„ lipoma, shoulder	2	...	2	...	...	...	...	1	...	1	...	2	...	„
„ „ arm	1	...	1	...	...	...	...	...	...	1	...	1	...	„
„ nævo lipoma, foot	1	...	1	...	...	1	...	...	...	...	...	1	...	„
„ ossifying ecchondroma	2	2	...	1	...	1	...	...	...	...	...	2	...	
„ ecchondroma	1	1	...	...	1	...	...	...	...	...	...	1	...	
„ subungual exostosis of great toe	1	...	1	...	...	...	1	...	...	...	...	1	...	Amputation. Terminal phalanx.
„ adenoma fibroma, breast	1	...	1	...	...	...	1	...	...	...	...	1	...	Excision of growth.
„ involution cyst of breast	1	...	1	...	...	...	...	...	1	...	...	1	...	Dissected out.
„ dermoid cyst	3	1	2	1	1	...	...	...	1	...	...	3	...	„
„ cyst femoral region	1	...	1	...	...	...	1	...	...	...	...	1	...	Ligatured and cut off; old obliterated femoral hernial sac.
„ umbilical cyst	1	1	...	...	1	...	...	...	...	...	...	1	...	Dissected out.
„ sebaceous cysts	6	3	3	...	...	1	2	1	1	1	...	6	...	„
„ pharyngeal adenoids	38	16	22	5	15	17	1	...	...	...	...	38	...	Forceps and curette (gas and ether, adults; chloroform, children).
„ naso pharyngeal polypus	2	2	...	...	...	2	...	...	...	...	...	2	...	Soft palate divided in 1 case; snare in the other.
„ papilloma	3	2	1	...	...	...	1	...	...	...	2	3	...	1 from septum nasi, 1 from chin, 1 from anus.
„ nævoid tumour	1	...	1	...	...	...	...	1	...	...	...	1	...	Excised.
Opening of abcess in face	6	1	5	2	...	2	1	1	...	...	...	6	...	
„ „ neck	25	12	13	6	3	9	2	1	6	...	...	25	...	
„ „ breast	11	...	11	...	...	2	4	3	2	...	...	10	1	1 admitted moribund, dying of septicæmia.
„ „ axilla	8	4	4	2	1	2	1	...	1	1	...	8	...	
„ „ arm	5	3	2	...	1	...	1	1	2	...	...	5	...	
„ „ forearm	3	3	...	...	...	...	...	2	1	...	...	3	...	
„ „ palmar	6	1	5	1	1	...	1	1	1	1	...	6	...	
„ „ scalp	9	4	5	6	1	2	...	...	...	...	...	9	...	
„ „ dorsal	1	...	1	1	...	...	...	...	...	...	...	1	...	For spinal caries.
„ „ lumbar region	6	4	2	...	1	3	...	1	1	...	...	5	1	For Pott's disease 4.
„ „ iliac	7	4	3	1	1	3	2	...	...	...	...	7	...	
„ „ gluteal	3	1	2	1	...	...	2	...	...	...	...	3	...	
„ „ ischio rectal	7	7	...	1	...	2	3	1	...	...	...	7	...	
„ „ vaginal	1	...	1	...	...	1	...	...	...	...	...	1	...	Pelvic cellulitis.

TABLE III.—*continued.*

OPERATIONS.	Total.	Sex.		Age.								Result.		Remarks.
		M.	F.	—5	—10	—20	—30	—40	—50	—60	+60	R.	D.	
REMOVAL OF TUMOURS—*contd.*—														
Opening of abscess Inguinal ...	17	12	5	1	3	5	5	2	1	...	...	17	...	
" " Perineal ...	4	4	...	...	...	1	...	...	1	1	1	4	...	
" " Perianal ...	2	2	...	...	...	1	...	...	...	...	1	2	...	
" " Psoas	4	1	3	...	...	2	1	...	...	1	...	4	...	For spinal caries 3.
" " Thigh	8	5	3	...	2	5	1	...	...	...	...	8	...	For old morbus coxæ 4.
" " Popliteal ...	1	1	...	...	...	...	...	...	1	...	...	1	...	In site of old operation (Antyllus) for pathological popliteal aneurysm.
" " Foot	3	3	...	...	...	2	...	1	...	...	...	3	...	
" " Whitlow ...	6	2	4	...	...	3	...	...	...	2	1	6	...	
OPERATIONS ON NERVES:														
Excision intercostal nerve	1	...	1	...	...	...	1	...	...	...	...	1	...	Painful scar following amputation of breast.
Stretching last dorsal nerve	1	1	...	...	...	1	...	...	...	...	...	1	...	For nephralgia. Subsequent nephro-lithotomy performed and stone extracted.
" sciatic nerve	1	1	...	...	...	...	...	...	...	...	1	1	...	
Primary suture of ulnar nerve ...	2	...	2	1	...	...	...	1	...	...	...	2	...	Doubtful restoration of nerve conduction.
OPERATIONS ON THE EYE:														
Cataract	4	3	1	...	...	...	...	...	...	1	3	4	...	Iridectomy and extraction.
Strabismus	1	...	1	...	1	...	...	...	...	...	1	...	...	
Glaucoma	1	...	1	...	...	...	...	...	1	...	...	1	...	Iridectomy.
Excision of eyeball	2	1	1	...	...	...	...	...	...	..	2	2	...	For panophthalmitis 1. Glaucoma 1.
OPERATIONS ON THE EAR:														
Mastoid suppuration	5	...	5	1	1	1	1	1	...	...	...	4	1	1 for lateral sinus thrombosis. Internal jugular vein ligatured and then divided. Died of

														pyæmia. Mastoid trephined and pus evacuated 1. Gouged 2 (pus evacuated). 1 mastoid antrum trephined, also area over temporo-sphenoidal and cerebellar lobes. Discharged herself.
OPERATIONS ON THE NOSE:														
Deviated septum	5	3	2	...	1	2	2	...	...	...	...	5	...	Forcible straightening and plugs.
Adhesions between septum and inferior turbinated	1	...	1	...	...	...	1	...	...	...	...	1	...	
Ecchondroma of septum	1	1	...	...	...	1	...	...	...	...	...	1	...	
Suppurating hæmatoma of septum	1	1	...	...	...	1	...	...	...	...	...	1	...	Incisions.
Polypi	1	1	...	...	...	1	...	...	...	...	...	1	...	Avulsion with forceps.
ON OTHER PARTS OF HEAD AND FACE:														
Tonsillotomy	4	1	3	...	1	3	...	...	...	...	...	4	...	Guillotine 3. Bistoury 1. (A large number of tonsillotomies were done in conjunction with operation for adenoids.)
Hare-lip	4	2	2	4	...	...	...	...	...	...	...	4	...	Paring and suturing (no hare-lip pins).
Cleft palate	2	1	1	2	...	...	...	...	...	...	...	2	...	Paring and introduction of silver wire sutures).
Suppurative tonsillitis	1	1	...	1	...	...	...	...	...	...	...	1	...	Incisions.
Lacerated wound of tongue	1	1	...	1	...	...	...	...	...	...	...	1	...	Sutured.
OPERATIONS ON THE CIRCULATORY ORGANS:														
Ligature of linguals	1	1	...	...	...	...	...	...	...	...	1	1	...	For secondary hæmorrhage following excision of tongue.
„ dorsalis pedis	1	1	...	...	...	...	1	...	...	...	...	1	...	For wound.
„ femoral	1	1	...	...	...	...	...	1	...	...	...	1	...	For popliteal aneurysm. (Digital compression and Esmarch's bandage both tried but failed.)
OPERATIONS ON VEINS:														
Excision of varices	22	13	9	...	...	1	6	10	4	1	...	22	...	Ligature and excision.
Varicocele	8	8	...	...	...	2	5	1	...	...	...	8	...	Ligature and excision.
Nævus	4	1	3	3	1	...	...	...	...	...	...	4	...	Excision 3. Electrolysis 1.

TABLE III.—*continued.*

OPERATIONS.	Total.	Sex.		Age.								Result.		Remarks.
		M.	F.	—5	—10	—20	—30	—40	—50	—60	+60	R.	D.	
OPERATIONS ON RESPIRATORY ORGANS:														
Tracheotomy	6	4	9	...	...	...	1	1	1	1	...	4	2	1 for malignant disease of œsophagus. 1 for tubercular laryngitis. 1 for drinking vitriol (died). 1 for laryngeal (died) spasms with cervical caries. 1 ? syphilis or fibroid tubercle of larynx. 1 for atrophy of isthmus of thyroid.
Empyema	3	2	1	...	1	...	...	...	...	2	...	3	...	Resection of ribs 3.
OPERATIONS ON DIGESTIVE ORGANS:														
Colotomy inguinal	2	...	2	...	...	...	...	...	1	1	...	2	...	For carcinoma recti.
Gastrostomy	1	1	...	...	...	...	...	...	...	1	...	...	1	Malignant disease of œsophagus and trachea (*vide* abstracts).
FOR STRANGULATED HERNIA:														
Inguinal	4	4	...	...	...	1	...	2	...	...	1	3	1	*Vide* abstracts.
Femoral	6	...	6	...	...	...	...	1	2	1	2	3	3	"
Umbilical	2	...	2	...	...	...	...	...	...	2	...	1	1	"
FOR RADICAL CURE OF HERNIA:														
Inguinal	20	17	3	3	...	5	8	3	1	...	...	20	...	Ligature of sac; excision and suturing of canal.
FOR FISTULA:														
In ano	29	21	8	...	...	3	5	12	6	3	...	29	...	Division. 1 horseshoe.
Anal fissure	1	1	...	...	...	1	...	...	...	...	...	1	...	Division.
Rectal prolapse	1	...	1	...	...	...	1	...	...	...	...	1	...	Excision of prolapsed membrane.

Hæmorrhoids	40	20	20	...	...	3	10	16	7	4	...	40	...	Ligature 30. Clamp and cautery 9. Whitehead 1.
Multiple polypi of rectum	1	1	...	...	...	1	...	...	..	...	...	1	...	Ligature and cautery. Polypi extended as far as finger could reach and could only be partially removed.
Excision of rectum	1	1	...	...	...	...	1	...	...	...	...	1	...	For carcinoma.
LAPAROTOMY:														
Exploratory	4	2	2	...	...	...	...	1	3	...	...	4	...	*Vide* abstracts.
Cholecystoduodenostomy	1	1	...	...	...	...	...	...	...	...	1	...	1	„
Appendicitis	1	...	1	...	1	...	...	...	...	...	...	...	1	„
Malignant obstruction of large intestine	1	1	...	...	...	...	...	...	...	...	1	...	1	„
Suppurating abdominal cyst	1	...	1	...	...	...	...	1	...	...	...	1	...	„
Tubercular peritonitis	3	2	1	1	1	...	...	...	1	...	...	3	...	„
OPERATIONS ON THE THYROID GLAND:														
Fibrous infiltration of gland	1	...	1	...	...	...	1	...	...	...	...	1	...	Tracheotomy and excision of part of isthmus.
Excision of tubercular glands	13	6	7	...	1	5	7	...	...	...	...	13	...	
Scraping of tubercular glands	6	9	4	...	1	5	...	...	...	...	...	6	...	
OPERATIONS ON URINARY ORGANS:														
Nephrotomy	1	...	1	...	...	...	1	...	...	...	...	1	...	For pyonephrosis.
Needling	2	2	...	...	...	...	1	1	...	...	...	2	...	Both negative (for stone); one a horseshoe kidney.
Nephrolithotomy	2	2	...	...	...	...	1	1	...	...	...	2	...	Stone extracted in both cases (58 and 65 grains respectively).
Opening perinephric abscess	2	...	2	...	...	...	...	1	...	...	1	2	...	For tubercle.
Supra pubic lithotomy	2	2	...	...	...	...	...	...	...	1	1	1	1	1 died of general exhaustion some 2 months after operation (stone 600 grains).
Supra pubic cystotomy	1	1	...	...	...	...	...	...	...	...	1	1	...	For hæmaturia and enlarged prostate (partial prostatectomy).
Lithrotrity	1	1	...	...	...	...	1	...	...	...	...	1	...	Stone, oxalate of lime, 118 grains.
For stricture of urthera	4	...	...	...	...	...	...	1	1	2	...	4	...	Rapid dilatation 3. Gradual 1.
Foreign body in urethra	1	1	...	...	...	...	...	...	...	1	...	1	...	Bonnet pin. Perineal section and extraction.

TABLE III.—*continued.*

OPERATIONS.	Total.	Sex.		Age.								Result.		Remarks.
		M.	F.	−5	−10	−20	−30	−40	−50	−60	+60	R.	D.	
OPERATIONS ON MALE GENERATIVE ORGANS:														
Retained testis	2	2	...	...	...	2	...	...	...	...	...	2	...	Excision of testis and suturing of canal.
Circumcision	28	28	...	7	5	10	5	...	1	...	...	28	...	
Radical cure of hydrocele	2	2	1	...	...	...	1	...	...	...	...	2	...	Excision parietal layer 1. Incision 1.
„ „ „ hæmatocele	3	3	...	...	...	...	1	...	...	2	...	3	...	Excision of sac 1. Incision 2.
Castration	1	1	...	..	...	...	...	1	...	...	...	1	...	For tubercular disease. (Severe secondary hæmorrhage followed.)
Paraphimosis	3	3	...	...	...	2	1	...	...	...	...	3	...	
Contracted meatus	1	1	...	...	...	...	...	...	...	1	...	1	...	(Congenital.) Meatotomy.
Perineal fistula	1	1	...	...	...	...	...	...	...	1	...	1	...	Cautery.
ON FEMALE GENERATIVE ORGANS:														
Cauterization female urethra	1	...	1	...	...	1	...	...	...	...	...	1	...	(Vascular caruncle.)
OPERATIONS ON THE ORGANS OF LOCOMOTION:														
On Bones:														
Periosteotomy	7	4	3	...	1	5	1	...	...	...	...	7	...	In 4 cases for diffuse infective periostitis.
Osteotomy	5	1	4	1	3	1	...	...	...	...	...	5	...	McEwen's for genu valgum 4; 1 for rickety curve of tibia.
Necrosis of carpus	1	...	1	...	...	...	...	...	...	1	...	1	...	Amputation of forearm.
„ „ phalanges	1	...	1	...	...	...	...	...	...	1	...	1	...	Due to paronychia.
„ „ ulna	2	1	1	...	...	2	...	...	...	...	...	2	...	
„ „ tibia	2	...	2	1	...	...	1	...	...	...	...	2	...	One acute epiphysitis.

Necrosis of lower jaw	3	...	3	...	1	...	1	1	...	...	...	2	1	1 died of acute infective periostitis of jaw (septic pneumonia).
Caries of metacarpus	3	3	...	1	1	1	...	...	...	...	...	2	1	1 died of measles.
„ „ tibia	4	...	4	1	...	2	...	1	...	...	...	4	...	1 developed scarlet fever.
„ „ humerus	1	...	1	...	...	1	...	...	...	...	...	1	...	
„ „ tarsus	2	1	1	...	...	1	1	...	...	...	...	2	...	
„ „ metatarsus	1	1	...	...	...	1	...	...	...	...	...	1	...	
Wiring patella	1	...	1	...	...	...	...	...	1	...	...	1	...	Good union.
„ inferior maxilla	2	1	1	...	...	...	1	...	1	...	...	2	...	For compound fracture.
On spine, laminectomy	1	1	...	...	...	1	...	...	...	...	...	...	1	For injury to spine.
Ununited fracture of humerus	1	1	...	...	...	...	...	1	...	...	...	1	...	False joint excised and ends freshened and wired. Failed.
OPERATIONS ON JOINTS:														
Fibrous ankylosis of shoulder and elbow	1	...	1	...	...	...	...	...	1	...	...	1	...	Breaking down adhesions.
„ „ „ shoulder	1	1	...	...	...	...	...	...	1	...	...	1	...	„ „ „
„ „ „ knee	2	...	2	...	...	...	1	...	...	...	1	1	1	„ „ „ 1 died comatose from shock.
Incisions for arthritis of knee	2	1	1	...	...	...	1	...	1	...	...	1	1	In one amputation of thigh was performed and patient died of secondary hæmorrhage (V.A.).
Interphalangeal joint of thumb	1	...	1	...	...	1	...	...	...	...	...	1	...	Joint ends scraped.
Excision of hip	2	2	...	...	2	...	...	...	...	...	...	2	...	For morbus coxæ.
„ os calcis	2	1	1	...	...	1	...	1	...	...	...	...	...	1 for infective periostitis. 1 for chronic ostitis.
„ metacarpal bone	1	...	1	...	...	...	...	...	...	...	1	1	...	For senile struma.
„ metatarsophalangeal joint, big toe	1	1	...	...	...	...	...	...	...	1	...	1	...	For hallux valgus.
„ for talipes valgus	1	1	...	...	...	...	1	...	...	...	...	1	...	Excision of wedge.
Arthrectomy of elbow	2	2	...	...	1	...	1	...	...	...	...	2	...	For tubercle.
„ knee	5	3	2	2	1	1	...	1	...	...	...	4	1	For tubercle 4. (1 died of shock 1¼ hours after operation.) 1 for simple hypertrophy of synovial membrane (V.A.).
„ ankle	2	1	1	...	...	1	1	...	...	...	...	2	...	For tubercle 2. (1 partial excision of tarsus.)
Exploration knee joint	2	2	...	...	...	...	...	2	...	...	...	2	...	1 for periostitis, caries, and osteitis of knee joint following secondary wiring of patella.
„ hip joint	1	1	...	...	1	...	...	...	...	...	...	1	...	For old dorsal dislocation; removal of tissue in acetabulum and reduction of bone.

TABLE III.—*continued.*

OPERATIONS.	Total.	Sex.		Age.								Result.		Remarks.
		M.	F.	—5	—10	—20	—30	—40	—50	—60	+ 60	R.	D.	
ON MUSCLES, TENDONS, FASCIÆ, AND BURSÆ:														
Tenotomy	2	...	2	1	...	1	...	...	...	...	...	2	...	Primary suture of wound; united without any adhesions forming.
For division of tendo achillis	1	1	...	...	...	...	1	...	...	...	...	1	...	Multiple subcutaneous incisions.
„ Dupuytren's contraction	1	1	...	...	...	...	...	...	...	...	1	1	...	
„ bursitis (excision)	10	4	6	...	...	2	3	2	2	1	...	10	...	
„ „ (incision)	3	1	2	...	...	1	1	1	...	...	...	3	...	
„ compound palmar ganglion	1	1	...	...	...	...	1	...	...	...	...	1	...	Insertion of silver wire.
„ suppurating ganglion of finger	1	1	...	...	...	...	...	1	...	...	...	1	...	Incision.
„ hammer-toe	1	1	...	...	...	...	1	...	...	...	...	1	...	Amputation.
ON CONNECTIVE TISSUE:														
Scraping sinuses	17	11	6	1	2	4	6	3	...	1	...	17	...	
Incisions for hæmatoma	2	2	...	...	...	...	...	...	...	1	1	2	...	1 (suppurating) around knee. 1 (suppurating) popliteal space (site of old aneurysm).
Suturing of lacerated wounds	3	3	...	...	...	...	1	1	1	...	...	3	...	
Scraping ulcer	4	2	2	1	...	1	1	...	...	1	...	4	...	
Skin grafting	2	...	2	...	...	1	...	...	...	1	...	2	...	Thiersch's method.
Parotid fistula	3	1	2	...	1	2	...	...	...	...	...	3	...	Pared and closed. Failed 2.
ON LIMBS AS A WHOLE:														
Amputation of arm	2	2	...	...	1	...	...	...	1	...	...	1	1	1 primary for compound fracture of humerus. 1 (died) for recurrent sarcoma forearm.
„ „ forearm	3	2	1	...	...	...	...	...	1	2	...	3	...	1 for necrosis of carpus. 1 for cellulitis palm and forearm.
„ „ fingers	13	10	3	1	...	5	2	1	2	2	...	13	...	Crushes and whitlow.

Amputation of thigh	4	4	...	...	...	1	...	1	1	1	...	3	1	1 for sarcoma of fibula (lower third). 1 re-amputation for tubercular stump. 1 for epithelioma of leg. 1 for acute septic arthritis knee (died, V.A.).
„ „ leg	1	...	1	...	1	...	...	...	...	...	...	1	...	1 for tubercular disease of ankle (arthrectomy, which failed).
„ „ toes	4	2	2	...	...	1	1	2	...	...	...	4	...	
„ „ arm and scapula and part of clavicle	1	1	...	...	...	...	1	...	...	...	...	1	...	For extensive sarcoma; before incisions were made, the subclavian artery and vein were ligatured; made an excellent recovery. (Cystic lympho-sarcoma.)
OPERATIONS ON THE SKIN, &c.:														
Ingrowing toe-nail	2	2	...	...	...	1	1	...	...	...	...	2	...	Avulsion.
Scraping lupus	9	1	8	...	1	4	4	...	...	...	...	9	...	
Suppurating bunion	1	1	...	...	...	...	...	...	1	...	...	1	...	
Pes planus	5	2	3	...	...	3	1	1	...	...	...	5	...	Cauterization.
Needle in breast	1	...	1	...	...	...	...	1	...	...	...	1	...	Extracted.
Molluscum fibrosum	1	...	1	...	...	...	...	1	...	...	...	1	...	Excision.
Empyema of antrum	1	...	1	...	...	...	...	...	1	...	...	1	...	Drilling anterior wall of antrum.

TABLE IV.—Cases of Infectious Disease.

A.—*Table of Cases of Infectious Disease originating in the Surgical Wards during* 1894.

Sex.	Age.	Date of Admission.	Disease for which Admitted.	Disease developed and date of manifestation.	Result.
F.	19	June 11, 1894	Pes planus	Scarlatina, 28 vii., 1894	Sent to Fever Hospital.
F.	6	May 8, 1894	Abscess of thigh.....	Scarlatina, 13 vii., 1894	„ „
F.	5	October 9, 1894	Caries of tibia	Scarlatina, 18 xii., 1894	„ „

B.—*Table of Cases of Infectious Diseases admitted into Surgical Ward,* 1894.

Sex.	Age.	Date of Admission.	Disease for which Admitted.	Result and Date.
F.	20 days	February 21, 1894	Erysipelas, feet, legs, genitals	Died February 22, 1894.
M.	61	December 30, 1893	Cellulitis of arm	Recovered January 9, „
M.	42	March 9, 1894	„ „ scalp	„ March 21, „
M.	19	April 28, „	„ „ ankle	„ May 7, „
M.	44	„ 23, „	„ „ elbow	„ „ 5, „
F.	26	January 20, „	„ „ forearm	„ January 27, „
M.	41	„ 8, „	„ „ arm	„ February 22, „
F.	2 7/12	June 15, „	„ „ arm	„ June 21, „
F.	25	February 24, „	„ „ hand	„ March 1, „
M.	41	January 5, „	„ „ forearm	„ January 20, „
M.	30	March 17, „	„ „ foot	„ March 22, „
F.	53	„ 14, „	„ „ hand	„ May 19, „
M.	4	July 16, „	„ „ hand	„ July 23, „
F.	60	June 17, „	„ „ hand and forearm	„ September 15, „
M.	43	September 5, „	„ „ forearm and arm	„ October 4, „
M.	65	August 7, „	„ „ foot	„ August 20, „
F.	12	October 1, „	„ „ finger	„ October 6, „
M.	20	„ 10, „	„ „ lip	„ „ 13, „
M.	36	„ 23, „	„ „ forearm	„ November 5, „
M.	39	December 6, „	„ „ forearm	„ December 12, „
M.	2	„ 8, „	Cutaneous erysipelas, face	„ „ 15, „

REPORT OF CASES IN "ARDEN WARD"

(FOR DISEASES OF WOMEN)

DURING THE YEAR 1894.

Number of cases in "Arden" on January 1st, 1894		10
Number of cases in "Arden" on December 31st, 1894		9
Number of cases treated during the year 1894		110
Cured and relieved	88	
Unrelieved	2	
Transferred	4	
Died	7	
Under treatment	9	
	—	110

Cases in "Arden Ward."

Nature of Case.	No. of Case.	Initials.	Age.	Result.	No. in Register.	Remarks, treatment, &c.
Uterus:						
Retroversion	I	I. T.	30	Relief	T. 9	Menorrhagia.
	II	E. D.	32	„	T. 63	
	III	E. F.	29	„	T. 90	
Subinvolution	I	E. P.	43	„	T. 24	Confined 7 weeks. Hæmorrhage.
	II	E. S.	29	„	T. 83	
	III	J. D.	24	Cured	U. 3	
Fibroid tumour	I	A. S.	42	Relief	T. 41	
	II	S. M.	54	Death	T. 58	Suppurating; discharging through the bowel.
	III	K. W.	32	„	T. 61	Undergoing cystic degeneration.
	IV	L. H.	20	Relief	T. 68	
	V	H. F.	35	„	T. 72	
	VI	M. A. l,.	42	Cured	T. 74	Submucous. Removed by enucleation.
	VII	E. H.	31	Relief	T. 91	Incarcerated.
	VIII	M. A. R.	43	„	U. 2	
	IX	E. W.	53	Under treatment	U. 27	
„ polypus	I	M. H.	52	Cured	T. 20	Removed by ecraseur.
Chronic metritis	I	A. M.	42	Relief	T. 11	Menorrhagia. Severe headache.
	II	E. S.	33	„	T. 55	
	III	M. M.	29	„	T. 77	Curetted.
Procidentia	I	E. S.	72	„	T. 75	
	II	E. S.	42	„	T. 88	
	III	S. R.	50	„	U. 5	
	IV	M. W.	33	„	U. 13	

CERVIX UTERI:						
Epithelioma	I	S. N.	50	Relief	T. 7	
	II	E. H.	38	„	T. 29	
	III	J. L.	33	„	T. 44	
	IV	M. G.	49	„	T. 49	
	V	J. G.	45	„	T. 50	
	VI	E. M.	36	„	T. 56	
	VII	F. S.	54	Cured	T. 59	
	VIII	J. S.	54	Relief	U. 1	
Stenosis	I	K. J.	33	Cured	T. 37	
	II	E. C.	33	Relief	T. 64	
Hypertrophic elongation	I	E. L.	30	„	U. 9	Pregnant.
Polypus	I	A. T.	43	Cured	T. 32	Removed.
OVARY:						
Cyst	I	I. D.	36	„	T. 17	Suppurating.
	II	E. L.	53	Died	U. 7	Cystitis. Disease of kidneys.
	III	L. A.	51	„	U. 8	Malignant.
	IV	A. S.	42	„	U. 11	Colloid; also of peritoneum.
Parovarian	I	A. A.	35	Cured	T. 36	
Chronic ovaritis	I	H. H.	32	Relief	T. 42	
	II	S. P.	32	„	T. 69	
Prolapse of ovary	I	R. W.	12	„	U. 17	
Hydrosalpinx.....	I	I. H.	29	Under treatment	U. 26	
VAGINA:						
Cystocele	I	E. T.	48	Relief	T. 13	
Epithelioma	I	M. E.	63	Unrelieved	T. 10	

CASES IN "ARDEN WARD"—*continued.*

Nature of Case.	No. of Case.	Initials.	Age.	Result.	No. in Register.	Remarks, treatment, &c.
BLADDER, URETHRA:						
Calculus	I	E. E.	54	Relief	T. 38	
Cystitis	I	E. C.	30	„	T. 45	
Incontinence of urine	I	A. A.	29	„	U. 21	
Vascular caruncle	I	S. S.	62	Cured	T. 6	
	II	E. W.	54	„	T. 76	
	III	M. A. B.	20	„	U. 12	
MENSTRUATION, DISORDERS OF:						
Menorrhagia	I	C. M.	39	Relief	T. 15	
	II	R. M.	43	„	T. 16	
	III	E. B.	40	Cured	T. 27	
	IV	M. A. L.	27	Relief	T. 33	
	V	N. S.	21	„	T. 41	
	VI	L. M.	29	„	T. 51	
	VII	I. I.	44	„	T. 52	
	VIII	M. A. D.	26	„	T. 65	
	IX	E. J.	34	„	T. 73	
	X	M. L.	31	„	T. 79	
	XI	M. C.	32	„	T. 89	
	XII	A. H.	36	Under treatment	U. 20	
Amenorrhœa	I	M. M.	19	Relief	T. 35	
	II	L. C.	16	„	U. 18	
PREGNANCY, DISORDERS OF:						
Abortion	I	A. B.	29	Cured	T. 57	
	II	M. A. S.	33	Death	T. 62	Secondary hæmorrhage.

	III	A. R.	43	Relief	T. 86	
	IV	J. D.	29	Under treatment	U. 25	
„ threatened ...	I	L. W.	43	Relief	T. 84	
	II	H. C.	22	Under treatment	U. 24	
„ sequelæ of ...	I	E. S.	40	Relief	T. 25	
	II	L. M.	38	Cured	T. 47	
	III	S. S.	38	„	T. 48	
	IV	E. P.	33	Relief	T. 60	Menorrhagia.
	V	L. W.	34	„	T. 66	„
	VI	E. S.	37	„	U. 15	„ Retroflexion.
Mania in pregnancy.....	I	L. G.	34	Cured	T. 23	
Ruptured perineum	I	A. L.	22	„	T. 19	Complete rupture.
	II	F. G.	29	„	T. 46	
	III	M. R.	34	„	T. 67	
	IV	E. I.	42	Relief	T. 82	
	V	E. M.	35	Still in Hospital	T. 92	
Varicose veins	I	C. M.	30	Relief	U. 14	
Puerperal septicæmia ...	I	E. B.	23	Cured	T. 30	
	II	R. B.	35	„	T. 31	
	III	L. J.	23	„	T. 34	
	IV	A. S.	29	„	T. 40	
	V	F. S.	27	Relief	T. 71	
	VI	L. K.	28	Death	U. 23	Came in moribund, and died the following day.
PELVIS:						
Perimetritis	I	M. G.	27	Relief	T. 22	Menorrhagia.
	II	A. M.	23	„	T. 26	Following abortion.
	III	S. S.	26	„	T. 41	
	IV	A. C.	34	„	T. 78	
	V	S. S.	31	„	T. 80	Following abortion.
	VI	C. F.	30	„	T. 85	

Cases in "Arden Ward"—*continued.*

Nature of Case.	No. of Case.	Initials.	Age.	Result.	No. in Register.	Remarks, treatment, &c.
Pelvis (*continued*):						
Hæmatocele	I	M. O.	30	Cured	T. 54	
Exostosis of sacrum	I	S. J.	40	Relief	T. 21	
Unclassified:						
Pyonephrosis	I	E. E.	62	—	T. 28	Transferred to Surgical Ward.
Strain	I	E. L.	19	Relief	T. 12	
	II	E. G.	23	„	U. 6	
Dyspareunia	I	S. V.	46	„	T. 39	
Neurasthenia	I	R. S.	21	Unrelieved.	T. 53	
Abdominal tumour	I	C. A.	53	—	T. 70	Transferred to Harper.
	II	E. R.	19	Relief	U. 19	Obscure.
? Tubercular	III	M. W.	28	—	U. 4	Transferred to Harper.
? Malignant hepatic tumour	IV	E. C.	55	—	U. 10	„ Tillard.
Chronic typhlitis	I	I. R.	30	Relief	U. 16	
Coccygodynia	I	M. W.	53	„	V. 22	Retroversion and flexion.

REPORT

OF THE

POST-MORTEM EXAMINATIONS MADE IN 1894.

By Dr. HEBB.

Cases recorded		228
Males	136	
Females	92	
General Diseases:		
Diphtheria	9	
Enteric fever	4	
Morbilli	3	
Erysipelas	1	
Puerperal septicæmia	1	
Pyæmia	5	
Tuberculosis	21	
Pernicious anæmia	1	
Leukhæmia	1	
Diabetes	1	
Rickets	1	
Syphilis	1	
	—	49
Diseases of the Nervous System:		
Meningitis	3	
Abscess	2	
Softening	2	
Hæmorrhage	5	
Epilepsy	1	
Convulsions	6	
	—	19
Diseases of the Circulatory System:		
Ulcerative endocarditis	3	
Chronic valvulitis	12	
Aortitis and aneurysm	5	
Pericarditis	1	
	—	21
Diseases of the Respiratory System:		
Bronchitis	3	
Broncho-pneumonia	15	
Pneumonia	8	
Phthisis	22	
Gangrene	1	
Hæmorrhage	1	
Sarcoma	1	
	—	51

Diseases of the Digestive System:		
Diarrhœa	6	
Appendicitis	3	
Ulcerative colitis	1	
Peritonitis	2	
Intussusception	1	
Ulceration of œsophagus	1	
Gastric ulcer	2	
Cancer of alimentary canal	9	
Cirrhosis	2	
Fatty liver	1	
Hydatids of liver	3	
Cancer of gall-bladder and duct	2	
Chronic pancreatitis	1	
	—	34
Diseases of the Urinary System:		
Acute nephritis	1	
Chronic nephritis	11	
Cancer of kidney	1	
Cystitis	1	
Stricture of urethra	1	
	—	15
Diseases of the Suprarenal Bodies:		
Addison's	2	
	—	2
Diseases of the Lymphatic System:		
Lymphangiectasis	1	
	—	1
Diseases of the Organs of Locomotion:		
Caries of spine	1	
Necrosis of spine	1	
	—	2
Diseases of the Generative System:		
Postpartum hæmorrhage	1	
Uterine myomata	1	
Cystic ovary	1	
Cancer	5	
	—	8
Injuries and Surgical Diseases:		
Amputation of thigh	1	
Adhesions of knee joint	1	
Hernia	4	
Hysterectomy	1	
Ovariotomy	1	
Fracture of skull	2	
„ neck	2	
„ humerus	1	
„ pelvis	2	

INJURIES AND SURGICAL DISEASES—*continued*—

Burn	5	
Rupture of kidney	1	
Bullet wound of head	1	
Vitriol poisoning	1	
Asphyxia	3	
	—	26

Remarks and short notes on most of the foregoing cases. The numbers from 177 *to* 401 *refer to the folios in vol.* viii.; *from* 1 *to* 29, *to those in vol.* ix. *of the P.M. Registers.*

GENERAL DISEASES.

Diphtheria.—188. F., 1. Membrane on mucosa of nose and palate and on epiglottis. Broncho-pneumonia: otitis.

235. F., 4½. Membrane on mucosa of nose, fauces, larynx to bronchi. Broncho-pneumonia: otitis.

259. M., 4. Membrane on fauces, and from epiglottis downwards to bronchi.

286. M., $2\frac{4}{12}$. Broncho-pneumonia. Membrane has disappeared. Tracheotomy.

356. F., 33. Membrane from fauces downwards to bronchi. Recent corpus luteum.

360. M., $2\frac{4}{12}$. Membrane on nasal and faucial mucosa, and from larynx downwards to bronchi. Broncho-pneumonia. Tracheotomy.

371. F., $2\frac{8}{12}$. Membrane from fauces downwards to bronchi. Broncho-pneumonia. Tracheotomy.

385. M., 3½. Membrane on nasal and pharyngeal mucosa, and from larynx downwards to bronchi. Broncho-pneumonia. Tracheotomy.

10. M., $1\frac{1}{12}$. Membrane on nasal, faucial, and laryngeal mucosa, extending downwards along trachea into right bronchus. Whole of right lung in condition of diphtheritic broncho-pneumonia. Tracheotomy.

Enteric fever.—369. M., 27. Enteric ulcers; perforation, peritonitis; mucosa of colon pigmented black.

372. M., 21. Enteric ulcers. Ulceration of larynx.

9. M., 29. Enteric ulcers of small and large intestine. Melæna.

17. M., 33. Enteric ulcers; perforation, peritonitis.

Morbilli.—223. F., 4. Firm white membrane on vocal cords, and in ventricle of larynx. Broncho-pneumonia. Chronic tonsillitis.

293. M., $1\frac{2}{12}$. Broncho-pneumonia. Ante-mortem clot in right auricle. Mesenteric and mediastinal lymphatic glands large and caseous. Rickets. Cutaneous surface covered with faint purplish maculæ.

294. M., 2. Broncho-pneumonia. Laryngitis. Talipes varus. Fading maculæ on cutaneous surface.

Erysipelas.—222. M., 19 days. Skin yellowish, discoloured with livid patches; indurated generally, but boggy in places. Diffuse suppuration of subcutaneous cellular tissue of extremities. Cadaveric softening of cardiac end of stomach. Shoals of streptococci in subcutaneous tissue.

Puerperal septicæmia.—15. F., 28. Uterus in condition of recent delivery. Pus in uterine and periuterine veins. Suppuration of prevertebral lymphatic glands.

Pyæmia.—278. M., 57. Ostitis. Pyo-pericarditis. Abscesses in liver and adrenal.

285. F., 34. Suppurative otitis, meningitis. Thrombosis of right lateral sinus and jugular vein. Suppurative pleuritis. Abscesses in lungs.

313. F., 34. Diffuse suppuration of right mamma. Much purulent fluid in right pleural sac, and collapse of lung. Mediastinal cellular tissue in condition of diffuse suppuration. Uterus 4 inches, walls thin; very soft. Internal aspect coarsely granular, almost rough; covered with thin sanious fluid. Os much lacerated. Ovaries and tubes nil. Veins of right broad ligament thrombosed; clot firm, thick.

347. F., $5\frac{2}{12}$. Necrosis of right half of inferior maxilla. Abscesses in lungs.

27. F., 7. Otitis; suppurating clot in right lateral sinus and jugular vein. Suppurative pleuritis; abscesses in lungs. Broncho-pneumonia.

Tuberculosis.—196. M., 49. Left pleura much thickened. Miliary tubercles in lungs. Calcification of coronary arteries. Miliary tubercles in kidneys. Vesiculæ seminales large,

swollen, boggy; on incision found to be distended with firm, clear, jelly-like substance. Numerous tubercle bacilli in miliary tubercles in lungs; hardened in Müller.

241. M., 17. Tubercular meningitis of brain and cord. Miliary tubercles in lungs. From 3rd to 7th dorsal vertebræ a prevertebral abscess, the pus of which is curdy; the fronts of the vertebral bodies are deeply eroded, and the 5th intervertebral cartilage is thinned and separated from the adjacent bones. Tubercles in liver, spleen, and kidneys.

252. M., $1\frac{2}{12}$. Otitis. Subepicardial tubercles. Tubercles in lungs, liver, spleen, kidneys, and intestines.

289. M., 29. Tubercular laryngitis; tubercular pharyngitis and enteritis; tubercles in lungs, kidneys, vesiculæ seminales and prostate.

292. M., 1. Tubercular peritonitis. Chronic abscess of mesentery communicating with gut.

322. F., 29. Tubercular laryngitis; pulmonary tuberculosis with vomicæ. Tubercular ulceration of intestine; fistulæ ani.

325. M., 53. Chronic pleuritis with much fibrosis. Fibroid tubercles in racemose collections in lungs. Tubercular peritonitis; tubercles in kidneys; tubercular cystitis. Tuberculosis of left epididymis and of vesiculæ seminales. Chronic aortitis. Large gastric ulcer.

362. F., 43. Excavation and fibrosis of lungs; tubercular peritonitis and enteritis; tubercular cystitis.

370. F., 7. Caseations in cerebral cortex. Caseous tubercles in thoracic and abdominal viscera. Body extremely emaciated.

Pernicious Anæmia.—368. F., 51. Skin slightly and uniformly pigmented, of a faint-brownish hue; gums of a steely-blue colour; subcutaneous fat of a dark-yellow hue; viscera exsanguine. Thyroid atrophied. Subperitoneal fat necrosis. Pancreas $3\frac{3}{4}$ ozs.; head indurated and relatively large; body and tail of normal consistence; head white, rest pinkish; lobulation everywhere well seen. Walls of stomach and intestines thin and pale; mucosa quite smooth throughout. Adrenals and semilunar ganglia normal.

Leukhæmia.—378. F., 46. Osteo-arthritis. Thyroid large, colloid, calcareous degeneration of lower end of right lobe.

Clot in heart and blood-vessels, is soft, grumous, and of a chocolate-brown hue; cord-like remnant of ductus arteriosus which is caseous in centre. Liver 133 ozs.; numerous calculi in gall-bladder. Spleen 56 ozs., capsule thick, substance firm; consistence beefy, homogeneous; colour brick-red. Some few prevertebral glands are enlarged. Both adrenals are large, tough, and fleshy; in the right are some yellow spots not unlike tubercles. Pancreas 7½ ozs., flabby, buff-coloured. Large ulcer at beginning of transverse colon, with subjacent fibrous growth, the cause of the ulceration. In left fallopian fimbriæ is a thin-walled cyst size of a pigeon's egg.

Diabetes.—270. See ante, p. 114.

Syphilis.—18. M., 1½. Emaciation; eczema scroti; fissured lips; suppurative rhinitis; broncho-pneumonia. Liver large, firm, bright yellow; spleen large, firm; kidneys large, firm, mottled.

Diseases of the Nervous System.

Meningitis.—345. See ante, p. 150.

354. M., 7½. Patches of diffuse hæmorrhagic extravasation into subcutaneous tissue of back of left forearm and hand. Surface of cortex cerebri hyperæmic, and a few patches of purulent lymph in subarachnoid space; large diffuse capillary hæmorrhage into cortex of right uncinate gyrus. Puncta cerebri well marked. Pia of cord hyperæmic. Mucopurulent fluid in left middle ear. Heart 3½ ozs. Ring of old tough small vegetations on mitral. A few similar vegetations on aortic cusps. Spleen 3½ ozs., very soft, of a brick-red hue; triangular infarct about middle of anterior edge. Had scarlet fever followed by chorea about eight months before admission. On admission, August 31st, 1894, there was temperature of 102°, rising to 105°. Next day headache and delirium. September 2nd, paresis of left arm and vomiting. September 3rd, became gradually comatose with rigidity of arms; died same day. [This case was inadvertently omitted from the Meningitis Cases reported ahead.]

399. See ante, p. 151.

Cerebral Abscess.—263. See ante, p. 155.

343. See ante, p. 156.

Cerebral Softening.—255. See ante, p. 138.
309. See ante, p. 139.

Cerebral Hæmorrhage.—197. See ante, p. 133.
262. See ante, p. 134.
288. See ante, p. 135.
321. F., 60. Fracture of skull. Hæmorrhagic extravasation into substance and upon surface of brain.
351. M., 34. Hæmorrhage into left basal ganglia and adjacent white substance. Chronic peritonitis. Granular kidneys. Left ventricle hypertrophied. Heart 14¾ ozs. Chronic arteritis. Osteo-arthritis.

Epilepsy.—3. F., 34. Well-marked blue line on gums. Slight but distinct pigmentation of skin. Nothing noteworthy in viscera.

Convulsions.—Infantile. 180, 239, 323, 331, 334, 4.

Diseases of the Circulatory System.

Ulcerative Endocarditis.—257. F., 44. Heart 12 ozs. Huge mass of vegetations on aortic cusps, almost occluding orifice of valve. The inflammatory deposit has inoculated tricuspid, the vegetations thereon being as large as a Spanish nut; mitral and pulmonary unaffected; no cardiac hypertrophy; arteries nil. Simple cyst of right ovary; simple cyst in left broad ligament size of Spanish nut.
389. M., 32. Heart 17 ozs. Aortic orifice almost occluded by large, soft, coarse vegetations depending from aortic cusps. The vegetations have by contiguity attacked the posterior aspect of large flap of mitral, which is completely perforated in the centre; rest of endocardium nil; arteries nil. No infarcts. Urate of soda deposit in both big toe joints. Centre of both patellar cartilages soft and ragged.
21. M., 29. Heart 16½ ozs.; left ventricle hypertrophied and dilated; aortic cusps are much ulcerated and covered with thick oldish vegetations which hang down in festoons. The valve is quite incompetent and its orifice greatly stenosed. The vegetations, from flapping upwards, have infected the aortic wall, wherein is a small aneurysmal dilatation, and downwards the

large flap of the mitral; arteries nil. Spleen 18 ozs.; one central infarct size of pea. Kidneys 14 ozs.; depressed scars of old infarcts in left. Both vesiculæ seminales are greatly dilated; the fluid therein is clear, yellow, viscid.

Chronic Valvulitis.—205. M., 60. Heart shows hypertrophy and dilatation; mitral flaps thickened and adherent. Aortic ring 3¼ inches; two anterior cusps thickened and adherent; posterior normal. As far as cœliac axis, aorta is in condition of advanced calcareous atheroma and the tube is much dilated. Hæmorrhagic infarcts in lungs. Abdominal viscera "cardiac." Deep cul-de-sac of bladder. Both tunicæ vaginales are thickened and adherent; in the right is a large mass of caseation; left varicocele. Gastro-intestinal mucosa is throughout of a dark brick-red hue; several patches of diffuse extravasation into mucosa of ileum. In duodenum two patches where mucosa is black and thin (necrosis) about ½ inch in diameter.

211. M., 61. Heart dilated and hypertrophied; mitral flaps much thickened; aortic cusps thickened, the two anterior being adherent; aortic ring=3½ inches; aorta in advanced condition of calcareous atheroma; viscera "cardiac." Cylindrical cyst, 2 inches by ¾ inch, containing a milky fluid at upper end of left epididymis.

258. M., 39. Heart dilated and hypertrophied; epicardium and endocardium of ventricles thick, white, opaque. Aortic ring 4 inches; no special thickening; aortic arch much dilated and thickened from calcareous deposit. Pulmonary artery much puckered at base and somewhat thickened; ring=2¾ inches; medium and small arteries in condition of chronic arteritis, those most affected being the abdominal; viscera "cardiac."

274. F., 58. Heart 11½ ozs.; mitral flaps not thickened, adherent; orifice stenosed, circular; rest of endocardium normal. Some atheroma of abdominal aorta and branches. Hæmorrhagic infarcts of lungs. Abdominal viscera cardiac.

277. F., 28. Heart 14 ozs., globose; aortic cusps thickened, valve incompetent; mitral much stenosed, flaps adherent, thick, rough from calcareous deposit; auricle large; viscera "cardiac."

299. M., 77. Heart 17½ ozs.; left ventricle much hypertrophied; aortic cusps thickened and rigid from calcareous deposit.

Calcareous arteritis most advanced in arteries of extremities which are like gas-pipes. Viscera "cardiac." Hydrothorax. Deposit of urate of soda in joints of hands and feet.

304. M., 17. Heart 34 ozs.; pericardium thickened and adherent; aortic ring 3 inches; mitral 4·75 inches; mitral flaps thickened; chordæ shortened; left auricle large, walls hypertrophied. A few small, old vegetations on aortic cusps; no recent endocarditis. Arteries nil; viscera "cardiac."

367. M., 14. Heart, with pericardium, 23 ozs.; aortic ring 2·5 inches; mitral 3 inches. On aortic cusps a complete ridge of small, hard vegetations. Mitral flaps adherent; chordæ shortened; endocardium of left auricle rough, elsewhere smooth; left auricle dilated and hypertrophied; ventricle dilated; pericardium adherent; lungs and abdominal viscera "cardiac"; thymus large, indurated, persistent; thyroid, large, indurated.

388. F., 37. Heart 13¾ ozs.; tricuspid and mitral flaps thickened and adherent; orifices much stenosed; aortic and pulmonary normal; auricles large and hypertrophied; medium-sized arteries atheromatous. Infarcts in lungs, spleen, and kidneys. Brain 40½ ozs. Yellow softening of 3rd right frontal convolution, adjacent part of ascending frontal, the insula, and the two upper temporo-sphenoidal convolutions. The softening extends inwards from the insula to the corpus striatum, and the yellow degeneration can be seen from the ventricle. There is no clot in the sylvian arteries.

394. F., 36. Heart 20 ozs.; ventricles hypertrophied and dilated; ante-mortem clots in right auricle; aortic cusps thick, ragged, and recurved; aortic ring=3 inches; rest of endocardium normal. The aortic valvulitis is no doubt a descending inflammation from aorta, the first part of which is much thickened, the edge of the aortitis being raised and its surface rough and fibrous; viscera "cardiac."

26. F., 37. Heart 20 ozs.; ventricles hypertrophied; mitral flaps thickened, adherent, and orifice stenosed, ring=3 inches; aortic cusps slightly thickened and recurved. Numerous soft large vegetations on mitral. Right branch of pulmonary artery embolised. Numerous large, almost confluent, hæmorrhagic infarcts in lungs. Gangrene of left leg and foot, the veins and arteries being occluded by firm adherent clot. Large caseous infarcts in left kidney.

Aortitis and Aneurysm.—220. M. (Brought in dead.) Hypertrophy of left ventricle; no endocarditis. Aorta as far as cœliac axis in advanced condition of atheroma. It is generally dilated and shows besides two saccular aneurysms, the uppermost being at commencement of thoracic aorta, the lower one just behind heart. Both contain laminated fibrin and have eroded the spinal column. The latter has ruptured into right pleural sac, which contains several quarts of blood clot. The cerebral and other arteries are atheromatous.

232. M., 32. Heart very large, great dilatation and hypertrophy; pericardium adherent. Aortic cusps thickened, adherent, and valve incompetent. Aorta in condition of soft atheroma. Saccular aneurysm of first part of arch and fusiform aneurysm 4½ inches long of descending aorta. Infarcts in lungs. Large caseo-cretaceous mass in liver; viscera "cardiac." In large intestine are several extensive areas of diffuse extravasation, and in ascending colon the mucosa is in early condition of necrosis.

324. M., 63. Heart 23 ozs., globose; hypertrophy, and dilatation. Mitral ring=4·5 inches. Aorta=4 inches; aortic cusps stiff from calcareous deposit at base, the front parts being thin and fenestrated. Aorta, its branches, and arteries of extremities in advanced condition of chronic arteritis. The femorals are like gas-pipes; well-marked atrophic aortitis in ascending arch; viscera "cardiac."

346. M., 42. Aneurysm size of orange at posterior part of transverse arch, from which proceed two secondary aneurysms filled with laminated clot. The aneurysm impinges against trachea, into which it has opened; the lungs and stomach are filled with blood. The left recurrent laryngeal loses itself on the wall of the aneurysm. The aorta generally shows well-marked atrophic aortitis. On the lesser curvature of stomach is scar of old gastric ulcer.

8. M., 64. Heart 25 ozs.; ventricles and left auricle much hypertrophied and dilated. Mitral flaps and aortic cusps thick, stiff, and opaque. Endocardium smooth and shiny. Mitral 4¾ inches, aortic 3½ inches. The aorta and its branches in abdomen and extremities are in advanced condition of calcareous atheroma; viscera "cardiac."

Pericarditis.—206. F., 3$\frac{10}{12}$. Heart, with pericardium, 9½ ozs.

Pericardial surface covered with a thickish layer of soft yellow lymph. Sac contains much turbid fluid. Endocardium of left auricle rough, elsewhere normal; viscera "cardiac."

Diseases of the Respiratory System.

Bronchitis.—184. F., 50. Pleural adhesions; emphysema; bronchi dilated; suppurative bronchitis. Heart 6 ozs.; aortic cusps calcified, stiff, but valve competent. Intestines almost empty. Stomach contracted, almost straight. Uterus small (rudimentary); anteflexed; os pinhole; uterine cavity dilated. Fallopian tubes contorted, not dilated, adherent to ovaries, both of which are cystic. The right, size of a hen's egg, consists of many thin-walled cysts containing a clear watery fluid. In the walls of cysts are several plates of dense white fibrous tissue; inner surface of cysts quite smooth. Left ovary about size of an almond. (Case of "Starvation," brought in dead); also 224 and 335.

Broncho-pneumonia.—These 15 cases present little of interest; in some rickets; in one case the viscera were found transposed; in one case (260, F., $8\frac{4}{12}$) the kidneys were "large white," and the left ventricle was hypertrophied.

Pneumonia.—181. M., 33. Grey hepatization right upper lobe.

203. M., 43. Grey or rather mouse-coloured hepatization of both upper lobes. Heart $17\frac{1}{2}$ ozs., adipose. Liver fatty. Spleen diffluent. Kidneys febrile.

226. M., 23. Grey hepatization of right; red hepatization of left lung; much shaggy lymph in right pleural sac.

237. M., 41. Grey hepatization right lung; red hepatization of left lung; much lymph in right pleural sac.

253. F., 19. Grey hepatization right upper lobe. Pleuritis.

256. M., 36. Red hepatization right middle lobe; much turbid fluid and lymph in sac; lower lobe of lung collapsed.

375. M., 35. Grey hepatization of right lung; chronic hydrocele of right tunica vaginalis; sac thick, tough, opaque; contains about 5 ozs. of dark-greenish fluid and much cholesterin.

28. M., 30. Grey hepatization left lower lobe; lungs much stained; heart adipose; wall thin. Liver large, fatty.

Phthisis.—182. M., 28. Chronic pleuritis; emphysema, bronchitis; pigmented fibroid tubercles in lungs; very little excavation; tubercular ulcers of intestine.

183. F., 49. Chronic pleuritis; emphysema, bronchitis; pigmented fibroid tubercles in lung; vomicæ at both apices; tubercular ulcers of intestine.

189. M., 31. Chronic pleuritis; lungs studded with fibro-caseous tubercles, many centrally disintegrating; vomicæ at apices; tubercular laryngitis; tubercular ulcer of colon; tuberculosis of left epididymis and vesicula seminalis.

191. F., 33. Chronic pleuritis; lungs consolidated from close aggregation of caseous tubercles; large vomicæ at apices; tubercular ulcers of intestines.

210. M., 27. Chronic pleuritis; in both lungs racemose collections of pigmented fibroid tubercles; a few small cavities at apices; tubercular laryngitis; tubercular ulcer of gut; some few tubercles in renal cortex.

243. M., 38. Chronic pleuritis; right lung large, emphysematous; a few tubercles; left upper lobe one large vomica, in lower lobe numerous miliary tubercles. Behind pylorus and pancreas is a spherical cyst size of hen's egg, contains a red, putty-like, odourless mass, apparently altered blood. Wall of cyst thin, internal aspect smooth.

244. M., 34. Chronic pleuritis; caseous and pigmented fibroid tubercles and numerous vomicæ in lungs. Tubercular ulcers of colon; blood in larynx, trachea, bronchi, and stomach.

249. M., 59. Chronic pleuritis; caseous and fibroid tubercles and vomicæ in lungs; tubercular ulceration of intestines.

273. F., 35. Chronic pleuritis; masses of caseating tubercles breaking down in both lungs; slight tubercular laryngitis; tubercular ulcers of intestines.

276. M., 34. Chronic pleuritis; left empyema; ulceration of left visceral pleura (pneumo-thorax); left lung consolidated from aggregation of caseous tubercular masses which are breaking down all over; a few fibro-caseous tubercles in right lung; tubercular ulcers at bases of both vocal cords; ulcerative tubercular enteritis. At middle of lower curvature of stomach is punched-out ulcer with indurated margin; floor is fibro-muscular tissue and covered with grumous yellow deposit (no tubercle bacilli); size of a sixpence.

290. M., 29. Chronic and recent pleuritis; fibroid tubercles breaking down in places in upper halves of lungs; tubercular ulceration of tracheal mucosa; uric acid Y-shaped calculus in pelvis and ureter of left kidney; no ulceration of pelvic mucosa; calices dilated and cortex atrophied.

291. M., 64. Chronic pleuritis; pigmented fibroid tubercles in lungs; a few vomicæ; bronchiectasis; ulcerative tubercular enteritis; tubercular peritonitis. Liver 32 ozs., in condition of atrophic cirrhosis.

300. F., 44. Chronic and recent pleuritis; masses of caseous tubercles which are breaking down, and also of fibroid tubercles in lungs; tubercular ulcerative colitis.

303. F., 30. Chronic pleuritis; pigmented fibro-caseous tubercles breaking down; large vomica at left apex.

310. M., 50. Chronic pleuritis; in both lungs masses of pigmented fibrous tissue and fibroid tubercles.

319. M., 62. Slight chronic pleuritis; upper lobes in condition of extreme emphysema; lower lobes indurated and consolidated; the right from closely-packed fibroid tubercles; the left chiefly from an unresolved pneumonic exudation, but also from racemose collections of fibroid tubercles; no breaking down of pulmonary tissue; amyloid reaction with liver and spleen.

330. M., 39. Chronic pleuritis; lungs studded with racemose collections of fibro-caseous tubercles; masses of caseous tubercles which are breaking down; thrombosis of right femoral vein.

382. M. Brought in dead. Blood in air passages and stomach; chronic pleuritis; collections of fibro-caseous tubercles all over lungs; numerous vomicæ.

387. M., 38. Chronic pleuritis; tubercular pneumonic phthisis with excavation; tubercular ulcerative enteritis; perforation; peritonitis. Liver 56 ozs., interstitial hepatitis.

23. F., 16. Chronic and recent pleuritis; ulceration of left visceral pleura (pneumo-thorax); left lung consolidated from presence of caseous tubercles, which are breaking down all over; right lung similar; no tubercles elsewhere.

355. M., 50. Chronic pleuritis. Pigmented fibrosis of lungs and deposits of fibroid tubercles. Vomicæ. Liver fatty; cystic duct blocked with cholestrin calculus size of horse-bean. Left omental inguinal hernia.

25. F., 60. Left thorax contracted. Chronic pleuritis. Much dense pigmented fibrosis of left lung with small vomica at apex. Right lung hypertrophied. Emphysema; bronchitis. No evidence of tubercles anywhere. *Fibroid* phthisis.

Gangrene.—218. F., 17. Gangrene of right middle lobe, soft blood-clot in cavity; superjacent pleuritis. Mucosa of pelvis of right kidney in condition of chronic pyelitis. Right ureter thickened, and its lower three-fourths much dilated. Mucosa granular and yellow. Bladder small and contracted. It looks like a ragged cavity, and is traversed by numerous thickish bands which probably represent remains of mucosa and muscular coats. Normal appearance of inner aspect of bladder quite lost. Uterus and ovaries very small, almost rudimentary. Hymen circular. No enlarged or caseous lymphatic glands in any part of the body.

Hæmorrhage.—227. M., 14 weeks. Brought in dead. Large areas of diffuse hæmorrhagic extravasation into right lung. The "apoplectic" tissue is somewhat indurated. Similar but less marked condition of left lung. No congestion appearances in any other parts or organs. No marks of violence.

Sarcoma.—245. M., 43. Both lungs infiltrated with masses of firm white deposit, which has reduced the aërating tissue to a minimum. Pleuræ thickened and adherent. Right lung 6 lbs. 14 ozs.; left lung 2 lbs. 3 ozs. In left kidney is a cortical adenoma. Right arm amputated at lower part of upper third. Stump healthy. Microscopical examination of growth shows it to be a small cell sarcoma. There is much fibrosis. The "cells" are really, as is usual, the nuclei, the amount of pink-staining cytoplasm being very small. The growth in cortex is not a secondary deposit but a proliferating adenoma.

Diseases of the Digestive System.

Diarrhœa.—"Infantile."

Appendicitis.—208. See ante, p. 110.
295. See ante, p. 111.
328. See ante, p. 112.

Ulcerative colitis.—374. M., 13. Colon greatly distended. In ascending and transverse colons are numerous circular punched-out ulcers, varying in size from a threepenny-piece to a florin. One of these, the largest, in transverse colon has perforated and given rise to acute general peritonitis. Mucosa from splenic flexure to anus is intact. Mucosa of small intestine normal, the glands in mucosa are not even enlarged. The vermiform appendix is glued to the pelvic brim by soft adhesions, and at its apex there is a minute hole through which pus exudes; it contains a fæcal calculoid about size of a grape-stone. The mesenteric glands are large, soft, and hyperæmic (dark red). Spleen 9¼ ozs., smooth, free, dark red on section, soft, homogeneous. The intestinal contents are of a bright yellow colour; in the small are fluid, in the large pultaceous.

Peritonitis.—11. M., 49. Chronic pelvic cellulitis pressing on sigmoid, which is ulcerated in three places, and communicate with pelvic cellular tissue. Pelvic cellulitis has burst into peritoneal sac, causing acute peritonitis. Two loops of small intestine are drawn down and flexed to pelvic mass; the mucosa of these loops is much ulcerated. Liver large, fatty. Fibroid tubercles at apices of both lungs.

13. M., 47. Peritonitis; puncture of small intestine due to paracentesis. Bladder contracted. Vesiculæ seminales dilated and filled with calculi. Aortic cusps thickened, adherent, and orifice stenosed. Left ventricle hypertrophied.

Intussusception.—See ante, p. 105.

Ulceration of œsophagus.—365. M., 49. Mediastinal glands breaking down and ulcerating into œsophagus just below level of tracheal bifurcation. Stomach contains about 3 pints of blood clot. Spleen 40 ozs. Splenic tissue, flabby though tough, homogeneous, reddish-brown. Masses of pigmented fibrosis about roots of lungs. Syphilitic scar on penis.

Gastric ulcer.—280. M., 30. Stomach very large, and contains about two pints of thin black fluid. Three ulcers on lesser curvature near pylorus, and two in duodenum. All are sharply punched out, circular, and about size of sixpenny piece. Lungs emphysematous. Right heart much hypertrophied and

dilated. Lateral curvature and also angular curvature of spine at dorso-lumbar junction. The 10th intervertebral cartilage is caseous.

287. M., 40. Saddle-shaped ulcer on lesser curvature, 2½ inches long, affecting anterior and posterior surfaces of stomach equally. Edge rounded, thickened. Gastric mucosa pigmented round about ulcer. The pyloric and œsophageal apertures are 3 inches apart.

Cancer of tongue.—240. M., 63. Soft sloughing growth affecting posterior third of tongue, edge raised and indurated. Numerous deposits in cervical lymphatic glands, in liver, and in lungs. In small intestine, 48 inches above ileo-cæcal valve, is a sausage-shaped cancerous growth, 2 inches by 1 inch, situate along short axis of gut; its surface is ulcerated, and it presents similar appearances to the growth in the mouth. Microscopical examination showed the growth to be a round cell sarcoma.

Cancer of pharynx.—381. F., 30. Epitheliomatous ulcer of lower pharynx; the adjacent tissues are much infiltrated, and the right side of larynx exposed. Hour-glass constriction of stomach from cicatrization of gastric ulcer (now healed) on lesser curvature.

Cancer of œsophagus.—230. M., 47. Epitheliomatous ulcer of œsophagus; large mass of induration lying between aortic arch, tracheal bifurcation, and œsophagus, in which left recurrent is implicated. Left crico-thyroid muscle is paler, smaller, and flatter than right. Recent pleuritis; both lower lobes consolidated. Kidneys granular, cystic, atrophied.

361. M., 58. Cancer of œsophagus, eroding trachea. Pneumonia. Gastrostomy.

384. M., 64. Cancerous ulcer of œsophagus just below tracheal bifurcation; post gastric glands much enlarged and eating into stomach at œsophageal aperture, which is almost occluded. Pneumonia. Chronic arteritis. Microscopically, carcinoma.

Cancer of stomach.—283. M., about 45. Cancerous infiltration and ulceration of stomach. Lymphatic glands around are extensively implicated. Deposits in left lung, which have become gangrenous and ulcerated into pleural sac (pyo-pneumothorax).

Cancer of large intestine.—358. F., 58. Cancerous fungating mass about ileo-cæcal valve; infiltration of peritoneum. Peritonitis. The pelvic cellular tissue is much infiltrated, disorganised, and communicates with rectum.

297. M., 67. Cancerous stricture at junction of sigmoid and colon (alveolar carcinoma). Kidneys granular; chronic arteritis; chronic pleuritis; fibroid phthisis.

178. M., 30. Colloid cancer of rectum.

Cirrhosis.—301. M., 52. Ascites. Liver 33 ozs.; atrophic cirrhosis. Spleen 14¾ ozs., flabby, homogeneous, smooth, free, chronic capsulitis of upper third. Intestinal mucosa thick and velvety throughout; that of colon being diffusely pigmented olive green; at lower end of gut are some diffuse hæmorrhages. Peyer's patches atrophied.

401. M., 62. Ascites. Liver 44 ozs., atrophic cirrhosis. Spleen 9 ozs., free, surface much pigmented; very soft and friable. In cortex of right kidney is an area of necrosis, size of Spanish nut. Left mamma size of crown piece and about ½ inch thick. Lower fourth or fifth of both lungs indurated from chronic interstitial pneumonitis, showing on section numerous sacculations or cavities, varying in size from a pin's head to a pea. They are empty, and most of their walls seem quite smooth. Microscopical examination of these parts shows that the bases are in condition of chronic interstitial pneumonitis, and that most of the cavities, if not all, are dilated bronchi.

Fatty liver.—376. F., 37. Ascites. Peritoneum covering intestines is thick, white, and opaque; elsewhere normal. Liver 122 ozs., shape normal; smooth; colour bright yellow; induration; the lobules are well seen apparently separated by fibrous tissue. Gall-bladder contains about 2 ozs. of thick, dark-green bile. On microscopical examination there is only a trivial amount of fibrous, but the amount of fatty degeneration is almost extraordinary. Osmic acid sections are almost entirely black, relieved by a few specks of yellowish brown. Spleen 7¾ ozs., soft, dark. Jaundice: no obstruction.

Hydatids of liver.—238. See ante, p. 116.

271. See ante, p. 117.

316. See ante, p. 119.

Cancer of gall-bladder and duct.—352. F., 53. Cancerous degeneration of gall-bladder invading liver. Secondary deposit in heart. On microscopical examination a squamous endothelioma, which in parts is fibrosing, *i.e.*, scirrhous. Unusual number of cell inclusions.

363. M., 65. Cancer of bile-duct involving head of pancreas; secondary deposits in liver. Pneumonia. Chronic arteritis.

Chronic pancreatitis.—307. See ante, p. 102.

Diseases of the Urinary System.

Acute nephritis.—380. F., 16. Kidneys 9¾ and 8¼ ozs., rather softer than normal; surface smooth; cortex large; on section a dark-red purple, chiefly from blood staining. Heart 10¾ ozs.; left ventricle hypertrophied; very little clot in cavities; most of the blood in heart and vessels quite fluid. Microscopical examination of kidney; a good example of acute nephritis especially glomerular; considerable hyperæmia. In tubules are casts and broken up blood corpuscles.

Chronic nephritis.—187. M., 60. (Brought in dead.) Kidneys 7 ozs.; capsules adherent; surface granular; cortex atrophied; consistence firm; colour purple. Heart 14½ ozs.; great hypertrophy of left ventricle. Chronic arteritis. Lungs œdematous.

193. M., 20. Kidneys 17 and 13 ozs., "large white"; surface smooth; cortex large, buff-coloured, bespotted with numerous bright yellow areas; pyramids purple. Liver 96 ozs., fatty. Pneumonia with much exudation into pleural sacs.

200. M., 40. Kidneys 8 ozs.; capsules adherent; surface coarsely granular though but little diminished; on section of a buff colour, mottled with pink and yellow areas. Some uric acid crystals in pyramids. Heart, with pericardium which is adherent, 15 ozs.; left ventricle hypertrophied. Arteries normal. Deposit of urate of soda in all joints of four extremities.

204. M., 38. Kidneys 17 ozs., "large white"; surface smooth; cortex large, spotted all over with small yellow areas; general colour pinkish; consistence flabby. Heart 13 ozs.; right ventricle hypertrophied; left not.

248. F., 48. Kidneys 5 ozs.; surface finely granular; cortex

much atrophied; flabby; very pallid. Heart 11½ ozs.; left ventricle hypertrophied. Chronic peritonitis.

251. M., 35. Kidneys 9 ozs.; surface granular; consistence firm; colour reddish, but mottled with yellowish areas; pyramids purple; subcapsular cortex small, interpyramidal relatively large. Heart 15 ozs. Deposit of urate of soda in big toe joints.

265. M., 33. Kidneys 16 ozs.; well-marked examples of "large white." Heart 18 ozs.; hypertrophy of left ventricle; atheroma of arteries of lower extremities; right oblique inguinal hernia; testicle atrophied.

312. M., 40. (Brought in dead.) Kidneys 11 ozs.; cortex of upper half of both much atrophied; the adipose tissue around is indurated and adherent; rest of cortex is normal. Heart 15 ozs., very adipose.

318. M., 17. Kidneys together weigh between 1¾ ozs. and 2 ozs., flabby, pallid, mottled; surface uneven, capsule strips easily; general atrophy, cortex most. Heart 5 ozs.

338. F., 52. Kidneys 10 ozs., indurated; colour dark purple; no naked-eye atrophy or other change except that capsule is a little adherent. Heart 14 ozs.; both ventricles hypertrophied. Hour-glass constriction of stomach, but no cicatrix.

393. F., 33. Kidneys 3½ ozs. and 1¼ ozs.; in left practically no renal tissue left; lower half of right is wasted to fibrous tissue; upper half pallid, but mottled with small pinkish and yellowish areas; surface uneven. Heart 17¾ ozs.; left ventricle hypertrophied; mitral flaps shortened, adherent and orifice stenosed; left auricle hypertrophied; endocardium smooth.

Cancer of kidney.—267. See ante, p. 124.

Cystitis.—198. M., 64. Bladder, size of an orange, has a diverticulum of similar proportion and shape, the two cavities being in communication by means of an orifice size of a sixpence. Heart 14 ozs.; pericardium universally adherent; suppurative bronchitis.

Stricture of Urethra.—242. M., 50. Traumatic stricture of urethra; scrotal and penile tissues are much scarred; cystitis; miliary abscesses in kidneys; spleen, liver, and kidneys amyloid.

Old badly-united fracture of left femur; left leg 2 inches shorter than right; everted. Osteophytes in falx cerebri.

Diseases of the Suprarenal Bodies.

Addison's.—329. M., 23. General bronzing of skin, and some pigmentation of oral mucosa; racemose collections of fibro-caseous tubercles in lungs; two small cavities; adrenals large, entirely transformed into caseous masses. Semilunar ganglia normal.

1. M., 47. General bronzing of skin; blood fluid; fibroid tubercles in lungs; adrenals large, shape well preserved, converted into fibro-caseous masses in which all traces of normal structure are lost; semilunar ganglia normal. Kidneys 10 ozs.; cortical atrophy of upper half of right kidney. Tuberculosis of prostate, of both epididymides and of right testis.

Diseases of the Lymphatic System.

Lymphangiectasis.—341. M., 38. From the pyloric to the ileocæcal valve the mucosa of small intestine is thick, soft, and shaggy, and looks as if bestudded with myriads of white flocculi. The mesenteric glands are large and flabby; some are pinkish and a few whitish. Between the glands and gut, long white lines run (dilated lymphatics). The mucosa of stomach and colon are normal; the intestinal contents are fluid, of a dark-drab hue, not offensive, and on standing, deposit a considerable sediment of a whitish colour. There is no ulceration anywhere. Microscopical examination of the sediment from intestine shows that it is composed chiefly of oil globules. Microscopical examination of wall of small intestine; villi, large and coarse; varicose lacteals distended with an amorphous (coagulated) substance. Similar appearances in the mesenteric glands.

Diseases of the Organs of Locomotion.

Caries of spine.—246. M., $3\frac{4}{12}$. Angular curvature of dorsal region; tracheotomy wound; prevertebral abscess in connexion with caries of 6th, 7th, and 8th dorsal vertebræ, the bodies of which are quite absorbed. A few tubercles in spleen and liver. Mediastinal glands large and caseous. Thymus large, indurated.

Necrosis of spine.—19. F., 5½. Angular curvature in lower dorsal region (7th, 8th, and 9th), but the bodies of all the dorsal vertebræ are bare, dry, black, and hard. In front of spine lies a prevertebral pyogenic cavity, which communicates on either side with a psoas abscess. There is no evidence of tuberculosis in any part of the body. The viscera do not give the amyloid reaction.

Diseases of the Generative System.

Postpartum hæmorrhage.—336. F., 33. Fundus uteri projects above pubes; uterus size of cocoanut, length 8 inches, breadth 4¾ inches; moderately well contracted, but walls flabby. Os large, dilated, ragged. Cervical portion of uterus much lacerated; thin, diffuse extravasation into sub-uterine tissue. Placental site on anterior wall of fundus, circular, about 3 inches in diameter. Corpus luteum in left ovary. Body adipose. Heart 9½ ozs.; excess of subepicardial adipose tissue; wall of right ventricle very thin; cardiac cavities empty. Syncope.

Uterine myomata.—14. F., 54. Large mass of myomata filling pelvis; the uppermost has suppurated, forming a cyst size of an orange, which is in connexion with vermiform appendix and sigmoid flexure; contents of cyst are purulent and fæcal fluid and slough of myoma. Miliary abscesses of kidneys. Umbilical omental hernia.

Ovarian cyst.—212. F., 57. Suppurating cyst of left ovary. Cyst extends as high as level of 7th rib; wall adherent all round.

Cancer of uterus.—185. F., 30. Cancer of cervix invading pelvic cellular tissue with secondary deposits in adrenals and liver. Peritonitis; much decomposing blood in peritoneal sac. Heart 10½ ozs.; right auricle very large; tricuspid flaps thickened; chordæ shortened, lie back against wall of ventricle; right auriculo-ventricular ring=6·5 inches; from posterior part of ring there stretches a band of endocardium to the front of top of auricle; it is much like a balloon-sail in shape, and is fixed at both ends by long thin cords. Microscopical examination of uterus shows that the tissue is invaded by round cells, which penetrate between the fibro-muscular stroma, thus forming

pseudo-alveoli; size of cell variable; almost all nucleus, very little cytoplasm. The appearances in adrenals are very similar, though the cells seem smaller and are more regular in size; here the microscopical appearances do not differ from those of a small cell sarcoma.

Cancer of ovary.—201. F., 53. Colloid cancer of both ovaries invading peritoneum; calcareous degeneration of right lobe of thyroid.

398. F., 42. Multilocular cancerous cystic ovaries. Peritonitis partly cancerous, partly inflammatory.

20. F., 51. Cancerous cystic ovaries invading peritoneum.

Cancer of breast.—348. F., 47. Cancer of left breast which has been amputated, parts around infiltrated with cancerous deposit; cancerous deposits in bones of head, pelvis, thigh, and ribs.

Injuries and Surgical Diseases.

Amputation of thigh.—207. M., 44. Amputation of right thigh in upper third; flaps held together by stitches; no attempt at adhesion; flaps riddled by diffuse suppuration; end of bone dry. Arteries of lower extremities in advanced condition of calcareous atheroma; in right femoral just above ligature, where artery has been tied for secondary hæmorrhage, is a large aperture; there is no clot. The cerebral arteries, those of trunk and upper extremities, are quite normal. Heart 10 ozs.; aortic cusps stiff from calcareous deposit and two adherent. Kidneys 7 ozs.; atrophy of cortex of lower third.

Adhesions of knee joint.—396. F., 63. Old intracapsular fracture of neck of left femur; left extremity 3½ inches shorter than right. Muscles flabby, very pallid, wasted; bones, especially about knee joint, extremely tenuous and fragile. Recent fracture of lower end of femur. Pneumonia (red hepatization) of right lung. Heart 12¾ ozs.; mitral flaps thickened, adherent, and orifice stenosed. Aortic cusps thickened and slightly recurved. Chronic arteritis. Thyroid large, and except apex of right lobe, in condition of parenchymatous degeneration; right lobe size of turkey's egg; left size of a hen's egg; recent hæmorrhagic extravasation into upper part of right lobe.

Hernia.—213. M., 62. Left inguinal. Operation wound healthy. No peritonitis; 10 inches of ileum of a bluish colour; about the middle a slight furrow where gut has been nipped. Bronchitis, emphysema: bases of lungs friable. Heart 12 ozs., normal. Aorta and arteries atheromatous. Kidneys 8 ozs., slightly granular. Deposit of urate of soda in joints.

282. F., 52. Right femoral; omentum adherent to sac. Some 4 inches of ileum congested; well-marked furrow where gut has been pinched. Peritonitis. Uterus large; mucous polypus at fundus; simple cysts of ovaries (one in each).

357. F., 52. Umbilical sac very large: contents, large and small bowel and omentum. Very adipose. Weight 22 stone.

16. F., 77. Right femoral. Resection of gut. Peritonitis. Heart 10½ ozs.; mitral flaps thickened. Chordæ shortened. Uterus and ovaries ill-developed; cervical portion much larger than fundal. Os small. Ovaries small, shrunken; fallopian fimbriæ adherent to ovaries.

Hysterectomy.—320. F., 32. Removal of fundus for large cystic myoma. Peritonitis and hæmorrhage into peritoneal sac.

Ovariotomy.—391. F., 55. Left uterine appendages absent; right appendages normal. Subperitoneal hæmorrhage. Several myomata in fundus uteri. Cystitis; ureters much dilated and walls thickened. Pelvis and calices of right kidney much dilated and the renal substance atrophied; right ureter double. Surface of left kidney granular. Pigmented fibrosis of apices of both lungs. Right lower extremity drawn up and in (flexion of thigh on pelvis) joint stiff; grating on rotation. On removal, joint cavity is found moved backwards towards sciatic notch; large rim of bone around acetabular cavity; head of femur rough, eroded. Knee joint stiff but joint normal; the adhesions are external. Other joints nil.

Fracture of skull.—334. F., 50. Fracture of base; right, middle, and anterior fossæ. Fracture of 3rd, 4th, 5th right ribs. Recent pleuritis. Chronic peritonitis. Liver fatty and cirrhotic. Kidneys 8¾ ozs., granular.

383. M., 34. Fracture of base; left anterior and middle fossæ; subdural hæmorrhage; some bruising of cerebral cortex at base. Fracture of left femur in middle third.

Fracture of neck.—327. M., 19. Rupture between 4th and 5th cervical vertebræ; no fracture of bone. Laminæ of 6th and 7th cervical vertebræ have been removed by operation. The cord at the level of rupture is softer than just above or below.

5. M., 22. Rupture between 4th and 5th cervical vertebræ (body of 5th is fractured to left of middle line; this was not detected till after a median vertical incision had been made). Evidence of pressure on cord at level of rupture.

Fracture of humerus.—397. M., 81. Fracture of upper end of left humerus; comminuted; into joint. Hæmorrhage on arachnoid surface of dura of left anterior and middle fossæ. Heart 17 ozs.; pericardium universally and firmly adherent; left ventricle hypertrophied; mitral flaps thickened; aortic cusps thickened and somewhat recurved. The arteries are in advanced condition of calcareous atheroma. Osteo-arthritis. Deposit of urate of soda in big toe joints. Circular patch, size of shilling, of atrophic sclerosis of central portion of inferior aspect of right lobe of cerebellum.

Fracture of pelvis.—6. M. Admitted moribund. Comminuted fracture of pelvis, chiefly of left side; hæmorrhagic extravasation into soft tissues and into peritoneal sac; fracture of 2nd to 8th left ribs; laceration of and extravasation into left lung; bruising of heart muscle; left leg ¾ inch shorter than right; lacerated wound 5 inches long in left groin.

29. M., 66. Fracture of left half of pelvis and of neck of left femur (both comminuted); compound fracture of left external malleolus; pus in ankle joints and in soft tissues about left tuber ischii; left leg 2½ inches shorter than right, everted. Osteo-arthritis. Deposit of urate of soda in big toe joints.

Burn.—314. F., 28. Liver 67 ozs., very fatty.

339. F., 50. Respiratory mucosa acutely inflamed, covered with soft yellow granular membrane, thickest on trachea and larger bronchi; suppurative bronchitis; both lungs pneumonic, in transition stage from red to grey hepatization; pleura covered with recent lymph.

24. M., 5. Bronchitis. Hyperæmia of duodenal mucosa; diffuse hæmorrhagic extravasation into subperitoneal cellular

tissue outside duodenum and head of pancreas; intestinal vessels injected; cortex cerebri pink.

Rupture of kidney.—302. M., 50. Right kidney torn in half; extensive diffuse hæmorrhagic extravasation into soft tissue around. About a pint of thin sanious fluid in peritoneal sac. Simple fracture of 9th and 10th right ribs. Arteries of brain, the coronary arteries, and those of lower extremities very atheromatous. Heart 17 ozs., left ventricle hypertrophied; calcareous deposit at base of aortic cusps. Kidneys normal.

Bullet wound of head.—377. M. (Brought in dead.) Bullet wound in right frontal region; skin around singed. Track of bullet is backward and slightly upwards towards squamous portion of left petrous bone where there is stellate fracture, the bone being bent outwards; no aperture of exit, the bullet being found on surface of left insula. Nervous tissue of frontal region extensively disorganised. Heart 17 ozs.; hypertrophy of left ventricle; chronic arteritis. Kidneys 12 ozs.; numerous irregular patches of cortical atrophy; no urate of soda. Mesenteric lymphatic glands are large and caseo-calcareous.

Vitriol poisoning.—22. M., $3\frac{7}{12}$. Mucosa of mouth fauces and œsophagus corroded; pyloric mucosa black and leathery. Lips and skin around swollen, tough, and leathery. Tracheotomy wound. Respiratory mucosa from larynx downwards covered with thin, yellowish, membranous exudation. Rickets.

Asphyxia.—214. M., 23. Œdema of aryepiglottic mucosa. Aperture of glottis occluded from collapse of sides, result of operation for necrosis. Tracheotomy opening. Lungs engorged and œdematous. (Brought in dead.)

PATHOLOGICAL SPECIMENS RECENTLY ADDED TO THE MUSEUM.

By P. MACLEOD YEARSLEY, F.R.C.S.,
Curator of the Museum.

SERIES VI.—INFANTILE SYPHILIS.

Craniotabes.

21L. The skull-cap of a child who was affected with congenital syphilis. The anterior fontanelle is widely open, the two parietal bones and the remaining part of the occipital bone show patches of well-marked craniotabes, those on the right side being most advanced. These areas are soft and easily indented by the finger.

History.—E. J., æt. 11 months, was admitted January 10th, 1894. He was always weakly, and had had "a cold" since birth. He had been in the hospital for 3 weeks before the present admission, suffering from bronchitis and supposed hydrocephalus. He was much wasted, and there were general bronchitic sounds all over the chest. The ends of the long bones were slightly enlarged, the anterior fontanelle was widely open, and he sweated much about the head. The abdomen was distended, and there was a double inguinal hernia. The temperature was intermittent, ranging between 98° and 103°. Vomiting began on January 14th, and the patient became gradually weaker, and died January 17th.

Post-mortem Examination.—Besides the specimen there were the usual signs of broncho-pneumonia. The ribs were beaded, and there was considerable sub-arachnoid œdema. *Vide* P.M. Book, Vol. 8, p. 192.

Presented by Dr. Donkin.

SERIES VIII.—FRACTURES.

Deviations from the ordinary process of repair of Fractures.

32A. Half of the bisected shaft of a left humerus. There is a transverse ununited fracture round which is a considerable col-

lection of thick and ossified temporary callus. There is no intermediary callus or attempt at union. The lower fragment is jammed into the upper, its end being rounded off, and the medullary canal closed by bone. The compact tissue of the upper fragment is much thinner than that of the lower.

History.—J. R. S., æt. 56, was admitted December 14th, 1891. He had fallen head downwards from a height of 20 feet, and in falling had struck the left arm against an iron girder. On admission he was in a dazed condition, suffering from concussion, a large scalp-wound, and a fractured humerus. The right knee was also injured. He went on well until the 15th day after the accident, when he had some spasm of the muscles of the lower jaw, and the gag had to be used for feeding. He then developed bronchitis, and died on January 8th, 1892, from tetanus and bronchitis. During the last 4 or 5 days the temperature was raised, the highest point reached being 101·4°. *Vide* P.M. Book, Vol. 7, p. 44.

Presented by Mr. MACNAMARA.

51A. The left leg of an adult "Jew" monkey (*Maccacus Sinicus*, var. *Nemertinus*), the femur of which has been fractured in the middle of the shaft by gun-shot before capture. Union has taken place with distortion, the lower fragment having been pulled upwards, backwards, and inwards. The superficial femoral artery, immediately above the adductor ring, is involved in the tissue around the injury; it was lacerated at the time of injury, as the trunk breaks up into several branches, and its continuation as the popliteal is small. There are three pellets of shot, two subcutaneous over the site of fracture, and one on the adductor magnus. Pieces of blue glass have been placed beneath each of these; red glass has been placed under the branching of the vessel.

Presented by Mr. SPENCER.

Gun-shot Fractures and Injuries.

53A. An occipital bone, just above the external protuberance of which a flattened revolver bullet is wired; below this is attached a loaded cartridge. The former is that referred to in the history, the latter was removed from another chamber of the revolver.

History.—On November 2nd, 1890, a man shot himself immediately over the occipital protuberance whilst in a cab. The bullet flattened against the bone, and was extracted by Mr. Davy. The bone did not show any injury, and no cranial symptoms followed. The patient left the Hospital quite well on November 10th.

Presented by Mr. DAVY.

Fractures of the Radius.

144B. The lower end of a left radius, showing union after a fracture. The lower fragment has been displaced backwards to a slight extent, and has united in that position. There is considerable thickening from callus.

SERIES IX.—INFLAMMATORY CHANGES IN BONE.

Caries.

168B. Portions of a frontal and right parietal bones, with the parieto-frontal suture. About the centre of the specimen is a circular area of tubercular caseation. It is a quarter of an inch in diameter, and has completely perforated the bone.

History.—H. T., æt. $1\frac{5}{12}$, admitted March 14th, 1894. He had been ill 8 days, suffering from bronchitis and measles. There was profuse discharge from the nose and both ears, and over the fauces were a number of white patches. There were signs of general bronchitis, of which he died.

Post-mortem Examination.—Besides the specimen and signs of broncho-pneumonia, there were a number of small yellow sphericles on the surface of the right lobe of the liver, the largest being no bigger than a small pin's head. *Vide* P.M. Book, Vol. 8, p. 236.

Presented by Dr. DONKIN.

Necrosis.

191A. A sequestrum from the alveolar border of the lower jaw, containing the sockets of two incisor and the canine teeth. The bone is rough, porous, and "worm-eaten." The necrosis was due to the irritation of a carious tooth.

History.—W. O., æt. 33, painter, came to the out-patient department on March 15th, 1890. The lower jaw on the left side began to swell 3 weeks previously. An abscess formed, which was opened from the inside of the mouth, a tooth being extracted for the purpose. When seen at the out-patient department there was a swelling on the lower jaw with a painful spot at the left angle of the mouth. The alveolus was red and swollen, and on probing the cavity left by the extraction of the tooth dead bone was felt. The specimen was removed from inside the mouth.

Presented by Mr. STONHAM.

Acute Necrosis.

210A. A left clavicle with the periosteum and some of the surrounding tissues. The bone is completely bare. The perios-

teum is much thickened, and attached only at the extremities of the bone; it is rough and matted to the structures with which it is in contact.

History.—G. H., æt. 15, office boy, admitted November 24th, 1893. He was taken ill on November 14th with pain about the left shoulder-joint. He got gradually worse, and the part became swollen. Subsequently pain and swelling appeared in the left ankle and right wrist. On admission he was very ill, and died in 6 hours, the temperature varying between 102° and 104·2°.

Post-mortem Examination.—On incising the boggy swelling over the left shoulder a pint of sanious pus escaped from between the clavicle and its periosteum, the bone being found to be quite bare and dry. There was œdema of the lower end of the left leg, pus escaping on incision, the lower 4 inches of the posterior surface of the tibia being bare. No joint was affected. Much turbid purulent fluid and yellow lymph was found in both pleural cavities. The pleuræ were much injected. The lungs were deeply congested throughout, and both contained numerous patches of almost pneumonic consistence, one or two of which were breaking down. On staining the pus from the clavicle by Gram's method *staphylococci* were found, and on cultivation the pus yielded orange-coloured colonies. *Vide* P.M. Book, Vol. 8, p. 159.

Presented by Dr. DONKIN.

SERIES XIII.—TUMOURS OF BONE.

Exostosis.

239A. The two halves of an exostosis from the lower end of the left femur. The growth is formed of cancellous bone, the free surface of which is covered to the depth of a quarter of an inch with hyaline cartilage. The outer surface is smooth.

History.—C. G., æt. 19, soldier, admitted April 8th, 1892. About 12 months before admission he noticed a hard immoveable swelling on the outer side of the left femur, about 2 inches above the knee; it gradually became larger, and caused him slight pain on walking. There were no other tumours and no family history of exostosis. The specimen was removed on April 13th by Mr. Spencer.

Presented by Mr. SPENCER.

Osteoma.

246A. The first phalanx of a finger, which has been bisected. The shaft is regularly expanded by a hard bony tumour, the greatest tranverse diameter of which is 1¼ inch. The sawn surface of the tumour is very dense, the margins being more porous. The cartilarge-covered articular ends of the bone are unaffected.

History.—A. B., postman, formerly in a cavalry regiment. Three years before attending the out-patient department he began to suffer with general swelling of the finger due to breaking-in a young horse. It became gradually larger, and, first parallel to the other fingers, subsequently developed laterally. It was not tender, but there was often a stabbing pain around it. There was no history of syphilis. The finger was amputated by Mr. Stonham.

Presented by Mr. STONHAM.

SERIES XV.—DISEASES OF JOINTS.

Synovitis.

289. The synovial membrane removed by operation from a left knee-joint which was affected by chronic synovitis. In the larger specimen the membrane is seen to be much thickened. Two pieces of blue glass have been placed in the supra-patellar pouch. Below and to the side are several large nodular masses, which are dense and fibrous; one has been cut open, and the edges of the incision separated by blue glass-rod. The synovial fringes are pendulous and greatly hypertrophied, the individual villi varying much in size.

History.—E. P., æt. 30, had a fall on the left knee 6 years ago, but thought lightly of it. One year afterwards she noticed that the joint was much larger than the right and was occasionally painful. She attended St. Bartholomew's Hospital, where the knee was strapped. During the whole time she was in the habit of working a treadle machine, and the joint was consequently never rested. After the knee was strapped she was compelled to lay up. Twice during the past 4 years she "twisted" her knee, and after the second time it was very painful and larger in size. On admission on April 24th, 1894, the left knee was very swollen, with distinct fluctuation and slight creaking on movement. On the inner side of the left patella could be felt a lump, which slipped away from under the finger. The skin over the joint was normal in colour and there were no enlarged veins. The circumference of the left knee above the patella was 15⅜ ins., that of the right being 13 ins. On May 9th Mr. Stonham opened the joint from the outer side, when half-a-pint of dirty yellow fluid escaped. The synovial fringes being felt to be greatly hypertrophied, the joint was laid completely open, and the ligamentum patellæ cut through. The synovial membrane was then dissected away, the crucial ligaments scraped, the joint washed out with carbolic (1 in 40) and closed, and the leg was put up in the extended position on a back splint. No drainage was employed, but firm pressure was made by bandaging. The patient made an excellent recovery, and on June 1st the limb was put into a silicate bandage. She was discharged on July 7th to a convalescent home.

Presented by Mr. STONHAM.

SERIES XVI.—INJURIES AND DISEASES OF THE MUSCLES.

Rupture of Muscle and Tendon.

375. The terminal phalanx of a right thumb with the tendon and portions of the muscular belly of the flexor longus pollicis, which was torn off by a machine. The skin and tissues about the proximal end of the phalanx are much lacerated, the cartilage covering the articular part of the phalanx is slightly chipped at its internal border, but is otherwise uninjured. The tendon of the extensor longus pollicis is torn through close to the phalanx. The attached flexor tendon measures $11\frac{1}{4}$ ins.

History.—S. S., æt. 19, electrical engineer, was admitted under Mr. Cowell on December 17th, 1891. On that day he was engaged in freeing a rope which had become entangled in a revolving shaft driven by straps, when his right thumb was caught in the rope and the terminal phalanx torn away. Very little pain was felt at the time, and there was scarcely any hæmorrhage. When admitted the patient was suffering from shock. The injury was treated with the boracic bath followed by antiseptic dressings. The temperature never rose above 99·4°.

Presented by Mr. Cowell.

SERIES XVII.—DISEASES OF SYNOVIAL SHEATHS AND BURSÆ.

Ganglion.

385A. Three bodies removed by incision from a ganglion in the tendon-sheath anterior to the first phalanx of the left index-finger. They are oval in shape, and compressed from before backwards, the largest being $\frac{5}{8}$ths of an inch long, and the smallest $\frac{3}{8}$ths. They are whitish in colour and of firm consistence.

History.—The ganglion existed in a porter, æt. 40, for six years. Shortly before coming to the hospital, bodies similar to the specimen had been discharged through a small hole, around which there was some inflammation; no suppuration. The ganglion did not communicate with either joint or bone.

Presented by Mr. Spencer.

385B. Numerous melon-seed bodies removed from a case of compound palmar ganglion. They vary in size from a pin's head to a No. 6 shot; they are mostly round or oval in shape, but some are irregular; they are yellowish in colour and of firm consistence.

Presented by Mr. Spencer.

385c. A ganglion with the tendon of the right flexor carpi radialis. Its walls are translucent and pouched, and it contains a glairy gelatinous substance. The specimen was obtained from the right arm of a man about 65 years of age, who was brought in dead. *Vide* P.M. Book, Vol. 8, p. 139.

Presented by Dr. R. G. Hebb.

SERIES XXa.—DISEASES OF THE SALIVARY GLANDS.

Salivary Calculus.

Salivary calculi are earthy concretions sometimes found in the duct of one of the salivary glands, usually the submaxillary. Small, as a rule, they may measure more than an inch in length, and are generally oval in form. Their composition is almost always phosphate and carbonate of lime, combined with a small amount of animal matter. As a result of the obstruction caused by them the gland frequently becomes swollen, the swelling subsiding whenever the retained saliva obtains an exit. Dilatation of the duct behind the calculus may occur, while the point at which the stone is held often becomes indurated after a time.

409. A small calculus about the size of a pea, which was removed from the right duct of Wharton in a dissecting room subject at the London Hospital. It is nearly spherical, fairly smooth, and yellowish-white in colour.

Chemical Composition (by Dr. Wilson Hake).

The calculus, which weighs 1·93 grains, consists almost entirely of phosphate of lime with some organic matter.

Presented by Mr. Yearsley.

SERIES XXI.—DISEASES OF THE TONGUE.

Tumours of the Tongue.

411a. A portion of the right side of the tongue. Springing from the surface is a papilloma. The greater part is tuber-

culated, but the upper portion is more distinctly papillomatous. There is no induration about the base and no ulceration.

History.—L. H., æt. 53, attended the out-patient department in February, 1891. On the anterior third of the right margin of the tongue was situated the papilloma shown in the specimen. First appearing eight years before, it had slowly increased in size, never causing any pain or inconvenience. There were no other warts on the body. It was removed by Mr. Stonham.

Presented by Mr. STONHAM.

Epithelioma of the Tongue.

412A. The left half of a tongue with the submaxillary glands and part of the floor of the mouth, removed for epithelioma. The greater part of the side and dorsum of the tongue is occupied by a deeply excavated malignant ulcer. The base is irregular and tuberculated, the edges indurated, ragged, and overhanging. The growth extends into the floor of the mouth and has implicated the glands.

History.—The specimen was removed by Mr. Spencer from an otherwise healthy girl, æt. 23, in whom it had existed less than three months, having begun opposite some carious teeth, which were extracted after the ulceration had been noticed a fortnight. Patient's father died eight years before of laryngeal cancer, after suffering with his throat for two years. The patient made a good recovery, and the disease did not recur at the site of the operation, but reappeared later on deep in the neck.

Presented by Mr. SPENCER.

415A. The tongue, soft palate, larynx, and part of the pharynx of a patient who died of epithelioma. At the posterior part of the left side of the tongue, and as far down as the upper surface of the epiglottis is a villoid, sloughing, cancerous ulcer, extending laterally from the left faucial arch almost to the right. The surface is soft, spongy, and dark in colour; it penetrates deeply into the tissues, and the edge is everywhere raised and indurated. The uvula is swollen, discoloured, and excoriated, and the anterior surface of the right side of the soft palate shows commencing ulceration. The right submaxillary lymphatic glands are much enlarged, discoloured, and softened; they have been incised and a piece of red glass-rod placed between the cut surfaces.

History.—Thomas S., æt. 63, stableman, was admitted March 19th, 1894, in an exhausted and emaciated condition, suffering from epithelioma of the tongue. The growth was very painful, and caused much

difficulty in swallowing. He stated that he had been ill four months. The glands in the neck were enlarged, the breath was foul, and there was rapid loss of flesh. The growth bled during the last month of life. He became delirious soon after admission, and died March 27th from exhaustion.

Post-mortem Examination.—The right cervical glands were much enlarged, white and softened in the centre, with caseous deposit. There were secondary growths in both lungs and in the intestine; 48 inches above the ileo-cæcal valve was a secondary ulcer. (See No. 415A.) There were deposits in the liver, and the spleen was much atrophied and affected with chronic inflammation of its capsule. (See No. 602A.) *Vide* P.M. Book, Vol. 8, page 240.

Presented by Mr. MACNAMARA.

416A. The right half of a tongue with the submaxillary glands. The posterior part of the organ is the seat of a deeply excavated epitheliomatous ulcer, the edges of which are raised, indurated, and overhanging.

History.—The specimen was removed by Mr. Spencer. No enlarged glands could be detected beforehand. The patient made a good recovery, but the disease reappeared in the position of a previously extracted molar tooth, suggesting an inoculation before the gum had healed:

Presented by Mr. SPENCER.

SERIES XXIV.—DISEASES OF THE PERITONEUM.

Peritonitis.

436A. Coils of small intestine which have become matted together by chronic peritonitis. The external surface is everywhere rough, and the opposed portions of gut are firmly bound together by chronic inflammatory tissue. Small nodules and flakes of lymph are seen scattered all over the surface of the specimen.

Morbid Growths of the Peritoneum.

437A. Portions of the large and small intestine bound together by malignant disease of the peritoneum. The new growth is jelly-like on section, nodular, and contains a large amount of colloid material.

History.—C. S., æt. 56, was admitted to the Westminster Hospital on September 29th, 1891, for abdominal swelling and dyspnœa. She had been losing flesh and suffering with increasing tenesmus and difficulty of micturition for some time previously, and six weeks before admission she discovered a lump in her right side. While in the hospital she could only breathe easily when sitting. Her abdomen was

prominent, and there was dullness and a feeling of increased resistance all over the hypogastrium as high as the umbilicus, but no definite tumour could be made out. On October 12th she vomited some black matter, and the day following an exploratory operation was performed, when a large diffuse nodular mass was found, and a diagnosis of carcinoma of the mesentery made. She was discharged on November 23rd, but was readmitted on December 14th in a very emaciated condition, and died after one or two syncopic attacks on January 28th, 1892.

Post-mortem Examination.—The parts principally affected were the great omentum and pelvic peritoneum. There were no secondary deposits, and the growth was entirely limited to the peritoneum, but the intestines were so matted together that anything like peristaltic action must have been prevented. *Vide* P.M. Book, Vol. 7, p. 63.

Presented by Dr. STURGES.

437B. The wall of a cyst found in the abdomen of a man who died of apoplexy. The exterior is somewhat rough and tuberculated. The greater part of the interior is covered with a calcareous-like deposit. At one part, close to the cut edge, is a spheroidal mass composed chiefly of fibrin, but which contains one or two collections of broken down red blood cells. At the lower part of the cyst is another mass of fibrin. The contents of the cyst were pea-soup-like, gritty, and drab-coloured, containing oil globules, cholestrin and amorphous lime salts, but no hooklets. The cyst is probably a dermoid.

History.—The patient, a tailor, æt. 73, was first seen in April, 1892, when he gave an account of dyspeptic troubles lasting for a year, the last three months of which he had lost flesh and had suffered with pain in the epigastrium and frequent vomiting. On palpation a tender swelling was discovered about the tail of the pancreas, and malignant disease of that organ was diagnosed. Six weeks later the sickness had almost ceased, and he had gained in weight under treatment. Some months after he had an apoplectic fit and died, comatose, in a few hours. The specimen was found, *post-mortem*, just below the diaphragm to the right of the spleen, shelling out with very little difficulty.

Presented by Dr. HALL.

SERIES XXV.—DISEASES OF THE STOMACH.

Gastromalacia.—Post-mortem softening.

438. Part of a stomach and œsophagus laid open. The œsophagus near its entrance into the stomach is much thinned, the mucous membrane eroded, and perforation has occurred in two places. The mucous membrane of the stomach is smooth in parts, and presents one or two whitish patches of erosion. The specimen is one of "post-mortem digestion."

Gastric Ulcer.—Duodenal Ulcer.

451A. Part of a stomach which has been laid open. In the centre is seen an oval ulcer, the base of which is formed by peritoneum. From the ulcer as a centre cicatricial contraction has taken place by which radiating puckers have been formed, so that the organ assumed an hour-glass shape.

History.—L. G., æt. 41, was admitted November 1st, 1892, and died on November 28th. At the post-mortem examination the stomach and duodenum were found to be greatly distended, the former being in a condition of "hour-glass contraction," and the latter being adherent to the dilated pelvis of the right kidney. The right kidney weighed 16 ozs., the left 1½ ozs., the size of the former being due to compensatory hypertrophy; its ureter was dilated, this being due to the pressure of the distended and adherent duodenum. *Vide* P.M. Book, Vol. 7, p. 295.

454A. Part of the stomach with the pylorus and about 1 inch of the duodenum. The gastric and duodenal mucosa are studded with small punched-out tubercular ulcers, which are especially numerous towards the fundus. They vary in size from that of a pin's head to that of a threepenny-piece.

History.—E. H., æt. 29, had been well until 6 months before admission, when she began to suffer with pain on defæcation; she attended at St. George's Hospital, and was there operated upon for fistula. She was discharged before the wound healed, and was advised to go to a warmer climate. The family history was phthisical, and when admitted to the Westminster Hospital on July 9th, 1894, the patient was suffering from active pthisis and was too ill for operation, dying on July 27th.

Post-mortem Examination.—All the lymphatic glands were large, caseous, and tubercular. The lungs were the seat of vomicæ and fibro-caseous tubercles. The gastric and intestinal mucosæ, displayed tubercular ulceration, and tubercle was also present in the liver, spleen, and kidneys. *Vide* P.M. Book, Vol. 8, p. 322.

The rectum and anus from this case are shown in specimen 503A.

Presented by Mr. Bond.

SERIES XXVI.—INJURIES AND DISEASES OF THE INTESTINES.

Typhoid Ulceration.

491A. Two pieces of ileum from a case of typhoid. The Peyer's patches are swollen and ulcerated. The solitary glands are swollen, and some of them show signs of ulceration.

Innocent Tumours of the Intestines.

Adenomata may occur in all parts of the intestine, but are most frequent in the rectum. They occur as polypoid outgrowths of the mucous membrane, varying in size from a pea to a walnut. They are rarely present in great number. The larger ones (493A) are attached by a fairly thick pedicle to the mucous membrane. They consist in great part of vascular connective tissue covered by mucous membrane set with large follicles lined by columnar epithelium.

Myomata and fibromata have also been described, but are very rare.

493A. A part of the sigmoid flexure. Dependent by a narrow pedicle, 1¼ ins. long, is a small polypoid growth about the size of a Spanish nut. The growth is spherical and of mulberry-like appearance. The surrounding mucosa is normal.

History.—The specimen was obtained from a man, æt. 53, who was admitted to the Westminster Hospital on April 22nd, 1891, dying of purulent peritonitis. A second larger growth was found in the caput cæcum coli. *Vide* P.M. Book, Vol. 6, p. 267.

Presented by Dr. ALLCHIN.

Malignant Tumours of the Intestines.

494A. A piece of small intestine which has been laid open. Running athwart the gut is a malignant ulcer, oval in shape, with its edges raised above the surface of the surrounding mucous membrane; the base is sloughy and yellowish-green in colour. The ulcer is secondary to malignant disease of the tongue and fauces, the primary growth being shown in specimen 415A (*quod vide*).

Typhlitis.—Perityphlitis.

501B. Part of the cæcum with the vermiform appendix. On the convex border of the latter, about 2 ins. from the tip, is a perforation, due to the ulceration caused by a fæcal calculoid. The perforation measures ½ inch, its edges being sharply cut.

501C. A cone-shaped fæcal calculoid from the preceding specimen (501B). It measures ¾ inch in length, is smooth, of a dark purple colour externally, and has a whitish core.

SERIES XXVII.—DISEASES OF THE RECTUM AND ANUS.

Fistula in Ano.

503A. The lower 3 ins. of a rectum with the anus, laid open. The specimen is the seat of numerous ulcerations and fistulæ. On the right side are two complete fistulæ, one of which opens into the gut by two tracks. Pieces of red, blue, and green glass-rod have been passed into these, while a communication between the two tracks of the one is shown by a piece of blue glass-rod passed transversely. On the left side is another complete fistula, through which a piece of red glass-rod has been passed, while just above it a piece of blue glass shows a blind internal fistula. The specimen is from the same case as No. 454A (*quod vide*).

Presented by Mr. BOND.

SERIES XXVIII.—HERNIA AND INTESTINAL OBSTRUCTION.

The General Anatomy of Hernia.

512A. A piece of small intestine, part of whose wall has been nipped in the femoral ring forming a "partial enterocele" or "Richter's hernia." On the gastric side of the hernia is an oval perforation about a ¼ inch in its long diameter, through which has been passed a piece of red glass-rod. The wall of the gut above the hernia is thickened by inflammatory exudation.

History.—I. M., æt. 65, a scrubber in the House of Commons, was admitted on September 19th, 1893, in a condition of collapse. She had suffered from severe abdominal pain and collapse for three days, but had not vomited. Her abdomen was distended and tender all over, and she died suddenly on September 20th.

Post-mortem Examination.—There was acute general peritonitis, and the peritoneal sac contained purulofeculent fluid and gas. The specimen was found nipped in the left femoral ring, the hernia being 92 ins. from the pylorus. The gut above the enterocele was much distended. This case was reported in the newspapers as one of Asiatic Cholera.

Intestinal Obstruction by Bands, &c.

531A. Two specimens of small intestine, showing the result of constriction by a band and the effect of an operation for the

same. The upper specimen, about 3 inches long, was resected; the lower specimen shows the cut ends united by Lembert's sutures of silk, the upper portion being invaginated into the lower for ½ inch over an india-rubber tube. The resected piece of gut exhibits a deep constriction which has resulted in ulceration, and a perforation measuring 1 inch.

History.—J. G. B., æt. 14, was quite well up to July 29th, 1890, when she began to suffer from headache and giddiness. Three days later she had pain to the left of the umbilicus, and in the evening shivered and vomited, the vomit being greenish-yellow and offensive. On August 3rd the pain and vomiting continued, and she passed a small, hard, dark brown motion, attended with considerable pain. An enema was administered on August 5th, which came back mixed with blood, but without any fæcal matter. Vomiting continued till August 5th, at 9.30 a.m., and then ceased till 5.30 p.m. On that day she was admitted into the Westminster Hospital. She did not appear to be in much distress, but felt sick. Pulse small, temperature 98·6°, tongue furred and dry. The abdomen was generally slightly distended; there was tenderness all over, most marked to the left of the umbilicus. An enema yielded no result. At 5.30 p.m. the pain increased and vomiting recommenced, being fluid and stercoraceous. There was great pain and tenderness on the left side, which was dull on percussion, but no definite tumour could be felt. On rectal examination Dr. Allchin felt invaginated gut, which was apparently reduced on August 6th by olive oil enemata, which returned without fæces, but with some flatus. On August 7th fæcal vomiting set in and continued all day. Mr. Spencer saw her in the afternoon and felt invaginated gut *per rectum*, which was reduced by warm olive oil injections. As the vomiting continued and the patient grew rapidly worse, on August 8th Mr. Spencer opened the abdomen and found the small intestine constricted by a band. This was divided, and the gut being perforated at one spot, 3 ins. were resected and the divided ends joined, the upper being invaginated into the lower over an india-rubber tube. The patient died a few hours after the operation.

Post-mortem Examination.—There was general peritonitis. The upper part of the intestinal canal was distended, the lower part contracted and full of soft clay-coloured fæces. Three inches of small intestine had been removed 45 ins. from the pylorus. The constricting band was found to have been a piece of great omentum which had surrounded the jejunum, binding it down close to the ileo-cæcal valve. There were numerous adhesions about the spleen and pelvis, the result of some previous inflammation. *Vide* P.M. Book, Vol. 6, p. 103.

Presented by Mr. SPENCER.

Volvulus.

533B. Part of the large intestine of a dog which is twisted upon itself, forming a variety of the condition known as "volvulus." Pieces of blue glass-rod have been passed into the cut ends of the gut. There are no signs of any inflammation,

and when fresh the bowel was simply congested. The dog died in the "Brown Institute" with symptoms of intestinal obstruction.

Presented by Mr. SPENCER.

SERIES XXIX.—INJURIES AND DISEASES OF THE LIVER.

Carcinoma.

557A. A slice of liver containing secondary cancerous deposits, some of which are in the substance of the organ, while some project on the upper and under surfaces being in part only covered by the liver capsule and peritoneum. From the same case as 662A.

History.—E. W., æt. 24, labourer, admitted January 21st, 1893, for radical cure of hernia, but not considered well enough for operation. He had had abdominal pain for 14 months. Two months before admission had pleurisy. From February 3rd his abdomen gradually increased in size, and he passed blood in his motions. On February 28th he was transferred to the medical side in a very emaciated condition. There were no physical signs in lungs or heart. The abdomen was much distended, and was tender generally. Coils of intestine could be felt and seen, but no tumour could be made out. The bowels were confined, the motions being very small and their passage accompanied by bright blood. He rapidly emaciated, and on March 21st began to pass flatus by the urethra, the urine being turbid and containing pus and albumen; he rapidly sank and died on March 27th.

Post-mortem Examination.—Lying between the rectum, bladder, and right side of the pelvis was a large fungating and sloughing mass of cancerous tissue which communicated by a fistulous opening with the rectum. Four to five inches from the ileo-cæcal valve was a cancerous stricture of the ileum, and the bladder communicated with the gut at the stricture by a circular fistulous hole. The prevertebral glands were secondarily enlarged, and the liver, spleen, heart, and pancreas contained secondary deposits. The growth was a colloid carcinoma. *Vide* P.M. Book, Vol. 7, p. 388.

Presented by Dr. STURGES.

SERIES XXX.—DISEASES OF THE GALL-BLADDER AND BILE DUCTS.

Gallstones and their Effects.

572A. A barrel-shaped calculus removed *post-mortem* from the gall-bladder. It is reddish-brown in colour and finely tuberculated.

History.—M. A. W., æt. 53, was admitted November, 1881, under Dr. Sturges suffering with mitral disease, and was transferred to the incurable ward in 1882. She had been subject since 1878 to attacks of giddiness, palpitation, and dyspnœa, and later she had piles and œdema of the legs.

Post-mortem Examination.—The case presented the usual phenomena due to disease of the mitral valve. The calculus shown was found in the gall-bladder, and was the only one present.

Analysis by Dr. Wilson Hake.—The calculus, which weighs 94·1 grains, consists mainly of pure cholesterin, but there is a slight admixture of biliary acids and a trace of phosphate of lime.

Presented by Dr. STURGES.

579A. A gall-bladder with the cystic duct. Its cavity is occupied by a large calculus, round which the walls, greatly thickened, are firmly contracted. The common bile duct was dilated and its walls thinned, and contained the four small facetted calculi at the bottom of the jar. The specimen was taken from a dissecting room subject.

SERIES XXXIII.—INJURIES AND DISEASES OF THE SPLEEN.

Chronic Inflammation.

601A. Half a spleen with parts of the fundus of the stomach, the diaphragm, and left lung. The capsule is thickened by chronic inflammation, and there were many tough bands of adhesions between it and the neighbouring parts. A piece of red glass-rod has been passed between it and the fundus of the stomach. The spleen pulp is normal, and there is no deposit of lime salts in the thickened capsule.

History.—H. P., æt. 31, was admitted May 26th, 1891, suffering with disease of the mitral and aortic valves, and died on June 26th. At the autopsy the capsules of spleen and liver were found to be the seat of chronic inflammation. *Vide* P.M. Book, Vol. 6, p. 329.

Presented by Dr. DONKIN.

602A. A small atrophied spleen which weighs under 1 ounce. At one part the capsule is greatly thickened, of a pearly whiteness, and very dense. The surface generally is irregular and, at the posterior part, tuberculated. It was very adherent to the surrounding structures owing to the chronic inflammation of its capsule. The specimen was taken from the same case as Nos. 415A and 494A (*quod vide*).

SERIES XXXV.—DISEASES OF THE HEART AND PERICARDIUM.

Morbid Growths.

622A. A heart, which has been bisected. At the lower part of the interventricular septum and the apex of the right ventricle is a small secondary deposit of cancer. This is opaque, whitish in colour, and contrasts well with the adjacent muscular substance. From the same case as 557A (*quod vide*).

Presented by Dr. STURGES.

SERIES XXXVI.—INJURIES AND DISEASES OF ARTERIES.

Arterial Thrombosis.

674A. Part of the superficial femoral and the whole of the popliteal artery with the accompanying veins. The artery is very calcareous and irregularly dilated for a distance of about 8 inches. Both artery and vein are filled with clot, some of which is old, but most of which is recent. The calibre of the artery reaches in parts a diameter of 1¼ ins. The specimen is from the same case as No. 1263 (*quod vide*).

Presented by Mr. MACNAMARA.

Aneurysms.

686A. The arch of the aorta and the pulmonary artery. The former has been completely and the latter partially laid open. The aortic arch is atheromatous. Just opposite the origin of the subclavian artery is a circular aperture ⅛ inch in diameter, through which a piece of blue glass-rod has been passed. This leads into a small aneurysm the size of a walnut in the position of the ductus arteriosus. This has been opened, and is seen to be entirely filled with firm, laminated, brown, fibrinous clot. The pulmonary artery as far as its bifurcation is thickened, atheromatous, and the seat of aneurysmal dilatation. This aneurysm, about the size of a turkey's egg, has only one aperture of exit—that to its right branch; this is narrowed down to the size of a goose-quill, and through it has been passed a piece of clear glass-rod. The left branch is almost completely

occluded, and a piece of red glass-rod shows that the site of its original aperture is merely marked by a furrow. The stump of this left branch is about $\frac{1}{3}$ inch thick, the thickening being chiefly due to a concentric fibrosis of its wall. It is probable that the smaller aneurism is due to imperfect obliteration of the ductus arteriosus, a view supported by its position and the character of the wall of its sac, which is there thin, fibrous, and smooth internally.

History.—G. C., æt. 40, was in Westminster Hospital under Dr. Donkin from October 12th to November 14th, 1891, for dyspnœa and hæmoptysis. He was a general labourer, had suffered from winter cough for 7 years, and had occasionally spat up blood for the past 5 years. He had sciatica 5 years before; no other illness. No history of alcohol. The shortness of breath had existed 12 months, and for 6 months before admission he had been losing flesh, and was quite unable to work. There was impaired resonance over the left thorax in front, a systolic bruit was audible all over the left chest, but loudest in the pulmonary area; a thrill could be felt in the second left interspace, where was also visible and palpable impulse. Apex beat most marked in fourth left interspace, but it could be felt over a wider area. Treated by iodide of potassium and rest. The physical signs remained much the same during his stay in hospital. He was under observation as an out-patient until his death on December 26th; he continued to spit blood until the last.

Post-mortem Examination.—The heart was enlarged, and with aortic arch and pulmonary artery weighed 18 ounces; there was dilatation and hypertrophy of right heart; endocardium normal, and valves competent; left pleura universally adherent. There were a few fibroid tubercles in the right lung, but owing to the complete occlusion of the left pulmonary artery, and consequent deficient blood supply, the left lung was converted into a mass of pigmented fibroid tubercles. In the small intestine were some (15) circular tubercular ulcers. *Vide* P.M. Book, Vol. 7, p. 310, and Path. Soc. Trans., Vol. 44, p. 45.

Presented by Drs. DONKIN and HEBB.

687A. The aorta, with the œsophagus, cardiac end of the stomach, bifurcation of the trachea, part of the diaphragm, the left kidney and part of the pancreas. The aorta is in an advanced state of atheroma throughout its whole extent; the arch is much dilated, as is also the bifurcation of the abdominal aorta. The cæliac axis is the seat of an aneurysm about the size of an orange, the orifice of which has been made apparent by opening the abdominal aorta behind. Part of the pancreas and the cardiac end of the stomach are adherent to the aneurysm, which has burst into the peritoneal cavity in two places, shown by pieces of red glass-rod. The left kidney still retains its fœtal lobulated condition, and has an additional aberrant renal

artery given off from the abdominal aorta about 2 ins. above its bifurcation.

History.—J. L., æt. 60, a saddler, was in the army between the ages of 17 and 40; had had no previous serious illness, and was quite well till October, 1893. He then had lumbar pain, and at the end of December began to suffer with cough; he gave up work January 10th, 1894, dyspnœa coming on January 13th. On admission on January 25th his breathing was very distressed, with orthopnœa. The thighs and legs were œdematous, the heart's impulse, of a heaving character, was felt in the fifth left interspace, and a double aortic bruit could be heard. Crepitations at both bases, with frothy expectoration. After January 29th the sputum became deeply stained with blood, and February 3rd, while getting out of bed to pass a catheter, the patient fell down and died suddenly.

Post-mortem Examination.—A large excess of serous fluid in left pleural sac, some in the right. Lungs œdematous, the right containing several infarcts. The pericardial sac contained an excess of serous fluid, and the cavities of the heart were dilated and distended with soft black clot. Left ventricle much dilated and hypertrophied, the aortic and mitral flaps being thickened and adherent. The peritoneal cavity contained blood. The gastro-intestinal mucosa was throughout swollen, and of a dark, brick-red hue. The contents of the stomach and the upper part of the gut were deeply stained with blood, and there were several patches of diffuse extravasation into the mucous membrane of the ileum. *Vide* P.M. Book, Vol. 8, p. 205.

Presented by Dr. ALLCHIN.

SERIES XXXVIII.—INJURIES AND DISEASES OF THE LUNGS AND PLEURÆ.

Empyema.

718B. Masses of coagulated lymph removed by operation from the pleural cavity of a young man who suffered from empyema.

History.—G. G., æt. 24, was in King William Ward in the early part of 1893; had been ill six weeks with signs of pleurisy, followed by empyema. Temperature remained persistently at 102°. There was albuminuria and slight hæmaturia. The chest was repeatedly aspirated, but only a little serum was obtained. On April 13th Mr. Spencer resected a portion of the eighth rib and removed three pints of pus with a double handful of breaking down fibrin. The reason that aspiration failed was that the needle entered the fibrinous masses.

Presented by Dr. STURGES and Mr. SPENCER.

Pulmonary Tubercle.

745A. The half of a lung. Over the lower lobe the parietal pleura is thickened and opaque in places, but smooth and

shining. The lung is large, much pigmented, and very heavy. The upper lobe is in a condition of extreme emphysema; the lower lobe is hard and consolidated from closely-packed fibroid tubercles as well as with pneumonic exudation which has not resolved. In no place is there any sign of breaking down.

History.—W. T., æt. 62, admitted July 4th, died July 26th, 1894. Had been a soldier and a heavy drinker. He had suffered from winter cough for many years, which had been constant for two years before admission, and worse for the last six months; he had been short of breath for two years, and losing flesh for six months. On admission he was very emaciated, and there was considerable dyspnœa. There were general bronchitic sounds all over the chest, with signs of consolidation and excavation at both bases.

Post-mortem Examination.—There was a few old adhesions over both lungs, and the pleural sacs contained several ounces of clear fluid. *Vide* P.M. Book, Vol. 8, p. 319.

Hæmorrhagic Infarction.

747A. Two pieces of lung which have been cut into to show the presence of two large hæmorrhagic infarcts. From a patient who died of heart disease.

SERIES XXXIX.—INJURIES AND DISEASES OF THE LARYNX AND TRACHEA.

Injuries of the Larynx.

Blows on the larynx may cause reflex spasm and dyspnœa of varying urgency. Severe blows and squeezes (as in "garotting") may result in fracture of the hyoid bone (795A), or of the thyroid or cricoid cartilages. Of these injuries, fracture of the hyoid bone is the most common, and usually takes place about the junction of the great cornu with the body. Fractures of the cartilages are rare, that of the thyroid being the more common. These injuries are always serious, pain, hæmoptysis, and dyspnœa being the most prominent symptoms. Displacement of a fractured cartilage may, by obstruction to the passage of air, cause death.

759A. A larynx. The hyoid bone has been fractured opposite the junction of the body and the right great cornu, the latter fragment having been displaced backwards.

Ulceration of the Larynx.

773A. A larynx, with part of the trachea, which has been laid open from the front. At the posterior parts between the sacculi laryngis, and just below the arytenoid cartilages, are two deeply excavated irregular ulcers separated by a narrow ridge of tissue. Below these is a third shallower ulcer, and the posterior wall of the trachea is the seat of numerous small ulcerations.

History.—R. B., æt. 33, was admitted under Dr. Allchin on June 30th, 1893, for double pneumonia, and died July 10th. Just before death his temperature rose suddenly to 109°. At the autopsy both lungs were found to be pneumonic and the mitral valve was stenosed. *Vide* P.M. Book, Vol. 8, p. 78.

Presented by Dr. ALLCHIN.

Syphilitic Laryngitis.

783A. A larynx with part of the trachea and portions of the skin in front of the neck, with a tracheotomy wound through which a piece of blue glass-rod has been passed. The larynx is the seat of severe stenosis, due to syphilitic laryngitis, and the bristle seen in the specimen was passed with difficulty. The mucous membrane covering the epiglottis and arytenoid cartilages is much thickened, especially on the right side.

History.—C. A., æt. 25, contracted syphilis in August, 1892. On October 19th he attended at the throat department suffering from acute laryngeal and pharyngeal catarrh and ulceration of the soft palate. He continued under specific treatment until November 9th, when he left London. On January 25th, 1893, he was admitted into the Hospital suffering from urgent dyspnœa. There was swelling of the epiglottis, aryepiglottic folds, and arytenoids, but there was no ulceration. Tracheotomy was performed on January 28th. About a week later he expectorated some pieces of necrosed cartilage. Six weeks after the tracheotomy, dilatation with Schroetter's bougies was commenced, but had to be discontinued on account of the formation of an abscess in the larynx. In May thyrotomy was performed by Mr. Spencer, and necrosed cartilage scraped away. No attempt was made at the time to bring the parts together. Later on strapping was employed to bring the two halves of the larynx in apposition. Eventually union took place, and the patient was left breathing through the original tracheotomy wound. Dilatation with bougies was resumed, and in the course of two months No. 9 was easily passed. The patient was able to expire through the larynx, but on attempting inspiration the ventricular bands were sucked together, and hardly any air entered. As the opening into the trachea showed signs of closing, a canula was introduced. On February 18th, while engaged in a street brawl, the canula slipped out, and the patient was brought to the Hospital dead. *Vide* P.M. Book, Vol. 8, p. 214.

Presented by Dr. HALL.

SERIES XLI.—INJURIES AND DISEASES OF THE KIDNEYS.

Injury.

790B. A right kidney, which has been completely torn across the middle.

History.—J. D., æt. 50, was admitted under Mr. Cowell on July 4th, 1894, in a state of great collapse, and with signs of internal hæmorrhage. He had fallen off a ladder through a distance of 13 feet. There was severe pain, with swelling over the right lumbar region. The urine passed was normal and contained no blood. The patient became gradually more collapsed, and died two hours after admission, retaining consciousness to the last.

Atrophy.

793A. The kidneys of a boy, one of which has been laid open. Both organs are very small, the two together weighing only $1\frac{3}{4}$ to 2 ounces. They are pale, flabby, mottled, of uneven surface, and in a condition of atrophy. The condition was probably the result of acute inflammation.

History.—J. S., æt. 17, was admitted on July 20th, 1894, suffering with profuse diarrhœa and vomiting, with which he was suddenly attacked on the day of admission. He became comatose, and died on July 25th.

Post-mortem Examination.—Besides the specimen shown, there was œdema and hypostatic congestion of the lungs, with slight hypertrophy of the left ventricle. The gastro-intestinal mucosa was normal. *Vide* P.M. Book, Vol. 8, p. 318.

Presented by Dr. STURGES.

Solid Tumours.

814B. A left kidney with part of the liver, and diaphragm, abdominal aorta, and inferior vena cava. The left renal vein is extremely large and distended with laminated fibrinous clot, while nearer the kidney it contains a soft, brain-like mass, which is part thrombus and part new growth. The kidney measures 7 ins. by $4\frac{1}{2}$ ins., and its upper two-thirds is affected by a new growth, which, to the naked eye, is divisible into two portions. The lowermost part is an aggregation of spheroidal masses of variable size, which are pinkish-white and soft. In the upper half is a series of spaces bounded by fibrous tissue; they originally contained a fluid or semi-solid substance, dark reddish-brown in colour. The cystic portion is apparently a degeneration condition. The ureter is pervious, but thickened.

History.—J. C., æt. 55, was admitted on December 14th, 1891, in a moribund condition. An out-patient at St. George's Hospital, he was on his way to that institution when he fell down in St. James's Park, and was brought to the Westminster Hospital. On admission he was suffering with faintness and severe dyspnœa, but was perfectly conscious.

Post-mortem Examination.—A firm, decolourized, fibrinous clot was found plugging the right pulmonary artery; a similar clot, which came from the dilated renal vein, was in the right heart. The right kidney was large but normal. No secondary deposits.

Microscopic Examination.—The mass from the renal vein is composed of very large epithelioid cells, irregular in shape, varying from squamous to cylindrical. The nucleus large and round, the cell plasma everywhere relatively large. Greater or less numbers of spheroidal, highly refractive bodies, with a yellowish reflex, in every cell. *Sections after hardening.*—Large cells of variable shape, but with a marked tendency to columnar; the shapes are due to crowding; nuclei large and round. Cell plasma relatively large; cell outline very clear and well-defined. In general arrangement the growth consists of areas demarcated by a fibrous stroma in which run blood-vessels. The stroma is of variable thickness, and the areas of unequal size. There is no tendency to degeneration in the part examined. *Vide* P.M. Book, Vol. 7, p. 30.

Presented by Dr. R. G. Hebb.

SERIES XLII.—INJURIES AND DISEASES OF THE BLADDER.

Cystitis and Ulceration.

844A. A female bladder, which has been laid open. It is dilated and its walls hypertrophied, fasciculated, and sacculated. One of the saccules communicated with an abscess cavity. The mucous membrane is the seat of numerous shallow ulcers with overhanging thickened edges. Bristles have been passed into the openings of the ureters.

History.—L. D., æt. 43, was admitted on July 24th, 1894, under Dr. Sturges. She had been getting gradually weaker since her last confinement, five years before admission. During the last six months she had suffered from abdominal pain and swelling. She was anæmic and emaciated, her legs and thighs were œdematous, the abdomen distended, fluctuating and dull in the flanks. A rounded tumour extended above the pubes half-way to the umbilicus. On vaginal examination the cervix was found pushed forwards, and to the left by a firm swelling to the right. Dulness and crepitations at the left apex. There was incontinence of urine, which contained pus and a small quantity of albumen. She got gradually weaker, and died on September 23rd.

Post-mortem Examination.—Tubercular-peritonitis. Lower part of ileum, cæcum, vermiform appendix, and anterior abdominal wall

adherent to apex of bladder. Inside these adhesions was an abscess cavity which contained four ounces of thick yellow pus, and communicated with a sacculus in the bladder wall. Tubercular ulceration in lower part of ileum. Pelves of kidneys dilated. Right pyelitis. Cavity at apex of left lung. *Vide* P.M. Book, Vol. 8, p. 362.

Fimbriated Papilloma.

847A. Portions of a fimbriated papilloma ("villous tumour") removed by operation from the bladder of a gentleman, aged 64.

Presented by Mr. STONHAM.

Mixed Calculi.—g. Oxalate of Lime with Phosphates.

948A. The two halves of a calculus removed from a bladder by suprapubic cystotomy. The nucleus, of oxalate of lime, has a mosaic-like appearance, as if formed of small grains bound together. The body is fairly white, pitted in parts, and the crust is rough and finely tuberculated externally. Weight 600 grains.

Chemical Examination (*Dr. Wilson Hake*).—The nucleus is almost entirely calcium oxalate, with some organic matter. The body is mainly composed of calcium phosphate, together with some oxalate, some carbonate, and some organic matter. The crust has the same composition as the body, but contains more carbonate. There is no uric acid present.

History.—The specimen was removed from a gentleman aged 72, together with a projecting part of the prostate gland, by supra-pubic cystotomy. The patient has suffered for 4 years with difficult micturition, accompanied latterly by great pain and an acute hydrocele. Senile dementia had gradually supervened. The calculus could always be struck when the bladder was full of water, but not when empty. The wound did well and healed, whilst urine passed *per urethram*, but the dementia became worse, the patient refused food, and died 23 days after operation. No autopsy.

Presented by Mr. SPENCER.

SERIES XLIII.—DISEASES OF THE PROSTATE.

Chronic Enlargement.

963A. A bladder which has been laid open, and the mucous membrane of which shows fasciculation and sacculation. The prostate is considerably hypertrophied, both in its lateral as well as its middle lobes. The middle lobe is enlarged unequally, the right edge projecting freely into the bladder cavity, it did not, however, offer any impediment to the exit of urine.

History.—M. R., æt. 75, was admitted on May 21st, 1893, under Mr. Macnamara, suffering with cystitis, enlarged prostate, and vesical calculi. He was too ill for operation, and died May 27th.

Post-mortem Examination.—Bladder and kidneys only were examined. The bladder contained 18 cream-coloured, hard, facetted calculi. The kidneys were normal except that the right contained one cyst. *Vide* P.M. Book, Vol. 8, p. 41.

SERIES XLVI.—DISEASES OF THE SCROTUM.

Epithelioma.

996A. Part of the scrotum at its junction with the penis and the enlarged inguinal and femoral glands, removed for epithelioma from a gardener who had not worked with soot. A large gland was also scooped out of the saphenous opening. There was no recurrence six months after.

Presented by Mr. SPENCER.

SERIES XLVII.—DISEASES OF THE TESTICLE, TUNICA VAGINALIS, EPIDIDYMIS, AND SPERMATIC CORD.

Hydrocele of the Tunica Vaginalis.

998A. A hydrocele of the tunica vaginalis testis of the right side which has been laid open from the front. The internal surface of the sac wall is extensively infiltrated with lime salts. The specimen was removed from the body of a middle-aged man, which was dissected for the second conjoint examination in anatomy, January, 1894.

Presented by Mr. STONHAM.

Hæmatocele of the Tunica Vaginalis.

1004A. The right testicle and spermatic cord of an infant. The epididymis and lower part of the cord are surrounded and infiltrated with blood-clot; the body of the testis is healthy. The affected parts have been cut into in two places, and the surfaces of the sections separated by glass-rod. The organ was removed for supposed melanotic sarcoma, but the condition is due to rupture of the spermatic veins, and not to torsion ("hæmatoma of epididymis," "acute varicocele," "intra-vaginal hæmatocele of Pott").

History.—The child, æt. 14 days, was brought to the Hospital with a tumour in the right half of the scrotum. The swelling was noticed 3 days after, but the mother could not say whether it was present at birth. The parturition was normal, and the child bore no signs of injury or disease. The swelling involved chiefly the back of the testis and lower part of the cord, and the skin over it was adherent and bluish black in colour. Beyond the swelling the skin was normal, without signs of bruising or inflammation. The tumour on puncture proved to be solid in consistence, some blackish fluid escaping. Mr. Macnamara saw the case, and it was agreed that the disease appeared suspiciously like a melanotic sarcoma. On incision the surface of the section looked black, the testis and tunica vaginalis were healthy, and there was no sign of blood-clot in a cavity; the diagnosis of melanotic tumour seemed correct, and castration was performed, which was followed by rapid healing.

Microscopic Examination.—The tumour is due to an infiltration of the epididymis and cord by extravasated blood. Large spermatic veins are to be seen in the midst of the mass. *Vide* Path. Soc. Trans., Vol. 43, p. 59.

Presented by Mr. SPENCER.

Loose Bodies in the Tunica Vaginalis.

1005A. Three small calcareous bodies removed from the tunica vaginalis.

Presented by Mr. STONHAM.

Gummatous Testis.

1008B. A right testicle, which has been laid open. In the centre of the body is a brownish-looking gumma about the size of a small pea. The testis is small and atrophied. The specimen is from a man, aged 35, who was admitted under Mr. Stonham on September 18th, 1893, for acute diffuse periostitis of the femur, and died of septic pneumonia ten days later.

Tubercular Sarcocele.

1011A. A left testicle removed for tubercular disease. It has been laid open from the front. The epididymis is extensively diseased, while the body is healthy. A portion of the skin of the scrotum is adherent to the posterior part.

History.—The testis was removed on September 28th, 1894, by Mr. Stonham from a gentleman, aged 30. He first noticed pain after riding a bicycle nine weeks before the operation. Swelling and rapid softening quickly followed. The family history was excellent, and there were no other tubercular lesions. The prostate, vesiculæ seminales, &c., were normal. There was fluid in the tunica vaginalis, and some miliary granulations on the inner surface of its parietal and visceral layers. The vas, where cut, was normal.

Presented by Mr. STONHAM.

SERIES XLVIII.—DISEASES OF THE OVARIES.

Solid Tumours.

1043A. Part of the left Fallopian tube, broad, ovarian, and round ligaments, with the ovary and a solid tumour of that organ. The tumour is about the size of an orange, irregularly globular and fairly smooth. It is covered with peritoneum, and has a pedicle consisting of the broad and ovarian ligaments. At the attachment of the pedicle the remains of the left ovary can be seen flattened out upon the tumour. At one spot there is a small patch of mucoid degeneration. The tumour has been cut into, and a small square of its substance has been removed to show its structure.

History.—M. S., æt. 49, committed suicide by taking opium on February 19th, 1894, at the Grosvenor Hotel. The history, obtained from her husband, was not very satisfactory. She was married at 18, and had two children within the first three years. Shortly after the birth of the second child she underwent an operation on the uterus, which was followed by severe hæmorrhage, nearly causing her death. Shortly after she was separated from her husband, and lived apart from him up to the time of her death.

Post-mortem Examination.—Besides the specimen there was found atheroma of the aorta with cardiac hypertrophy, and calcareous degeneration of the cerebral vessels. The gall-bladder contained a large gall-stone.

Microscopic Examination.—The tumour is a pure fibroma.

Presented by Mr. YEARSLEY.

SERIES LIII.—DISEASES OF THE BREAST.

Cysts of the Breast.

1104A. The half of a left breast removed for cancer. The gland is occupied at the lower part by a large growth which is cystic, but so filled with intra-cystic growths as to appear solid. The nipple is retracted, and at one part of the section is seen a small extravasation of blood.

History.—M. A. P., æt. 50, was admitted under Mr. Bond on July 9th, 1894. She was married and had eleven children, some of whom had died of phthisis. Six months before admission she had felt continued darting pain in the left breast, and had discovered a small tumour about the size of a Spanish nut, which soon commenced to grow rapidly.

She had not noticed whether she had lost weight. On admission there was a large, hard tumour, measuring 6 ins. by 5 ins., in the outer and lower part of the left breast. The nipple was retracted and the surface of the lower part of the skin red and inflamed. The skin was implicated, but the tumour moved freely on the tissues beneath. There were some enlarged glands in the pectoral muscle and axilla. Both breasts were large and fatty. There was a slight serous discharge from the nipple, and when the tumour was pressed upon the nipple was dragged in. On July 11th Mr. Bond removed the whole breast, but did not clear out the axilla. The patient made a good recovery, and was discharged on August 1st.

Microscopic Examination.—The growth is a villous or duct cancer, with well-marked cysts and intra-cystic growths, in the centre of which degeneration has commenced. There is a well-marked capsule in some parts, but in others it is absorbed and incorporated in the advancing growth.

Presented by Mr. BOND.

1106A. The rudimentary mamma of a boy removed for sero-cystic disease. The gland substance is seen to be occupied by smooth-walled cysts without any trace of intra-cystic growth.

History.—The breast was removed from a boy, aged 8 years, in whom a swelling of the right breast had existed for a year. Straw-coloured fluid escaped on tapping.

Microscopic Examination.—The cysts are seen to be lined with flattened epithelial cells, with no intra-cystic growths. The small amount of intercystic material is fibrous tissue, amongst which are minute cysts of the same kind as the larger.

Presented by Mr. SPENCER.

Cancer of the Breast.

1132A. The half of a left breast removed for scirrhus carcinoma. The growth is situated in the upper part of the gland, about 1½ ins. above the nipple, which is not retracted. Colloid degeneration is commencing in the centre of the cancer.

History.—J. E., æt. 74, was admitted under Mr. Bond on July 16th, 1894, for cancer of the breast. The tumour was first noticed about 4 or 5 years ago. There was occasional slight pain in the mamma, and the tumour increased but very little during the first 4 years. After Christmas, 1893, it increased more rapidly. On examination it was found to be about the size of an orange, hard, and nodular. About a square inch of skin over it was firmly adherent and red and black in places. The nipple was not affected, and the growth was firmly moveable over the deeper structures. The glands in the axilla were implicated. The breast was amputated on July 18th, and the patient made a rapid recovery, leaving the Hospital on August 29th.

Presented by Mr. BOND.

SERIES LIV.—INJURIES AND DISEASES OF THE CENTRAL NERVOUS SYSTEM AND ITS MEMBRANES.

Inflammation of the Spinal Cord and its Membranes.—Syringomyelia.

1159A. The spinal cord and membranes. The dura-mater from the foramen magnum downwards as far as the cervical enlargement is greatly thickened. It was adherent to the bone, as it is to the cord. The intermeningeal space is much atrophied from distension of the central canal, which is dilated throughout, but chiefly in the cervical region. A large probe passes easily through the canal, even at its lower end. The specimen has been cut through at one place to show this, and pieces of red glass-rod passed into the dilated canal. This condition of syringomyelia stops at the upper part of the cord. On the posterior aspect of the lower part of the cord are numerous thick calcareous plates, one of which has been exposed by incising the dura-mater and parting it with green glass-rod. Hanging on either side of the specimen are parts of the sciatic nerves, which are flabby and wasted.

History.—W. S., æt. 49, admitted under Dr. Donkin, March 23rd, 1893, a commercial traveller, total abstainer for last 27 years, and long accustomed to walk 25 miles a day; married, 4 children, all healthy, none lost; no neurosis in family. Sore, followed by rash and sore-throat, 28 years of age; his doctor said it was syphilis. Had an attack 24 years ago, in which his right hand became weak, and he could not write. Left leg also weak and dragged when he walked. Speech also somewhat affected. Recovered from this attack in a few days. Typhoid fever in 1880. In 1888 suffered from loss of power in both hands, which lasted some months; this gradually improved, though some weakness remained. About 12 to 18 months ago was attending the National Hospital for 5 months for staggering gait and weakness of his legs, which came on gradually. Memory failed, and he was given easier work by his employers. Towards the end of September, 1892, he found that he could not always hold his water, and sometimes completely lost control; for this, with weakness of legs, sleeplessness, and facial erysipelas was admitted into Guy's Hospital under Dr. Pye-Smith on December 13th, 1892. Until 4 days prior to his admission could always walk with a stick, but now became too weak to do so. Condition then noted was: well-marked facial erysipelas; temperature 102°; loss of power in both legs; able to lift himself in bed, but cannot walk without assistance or a stick. Legs well-formed, muscles firm. Ankle clonus readily on both sides. Knee-jerks increased. No disturbance of sensory impressions (not tested for hot or cold). Unable to control urine or fæces. Bladder empty; no retention overflow. Heart and lungs nil. Urine 1015, albumen. Up to January 26th passed through

severe attack of facial erysipelas with numerous abscesses on head, face, and neck, which were opened and treated with hot boracic fomentations, which caused no pain. On December 31st the incontinence of urine and fæces was much improved, and by January 6th arrested. Sensation over legs good; optic discs pale, especially left. Taking pot. iodid. gr. xv. thrice daily. On February 6th could walk slowly about ward without a stick; knee-jerks and clonus decreased. Remained in Guy's 8 weeks, and left much improved in his walking, but (as he stated at Westminster Hospital) he still passed urine and motions in bed. Was several times delirious at night, and had hallucinations of sight. A few days later he again took to his bed, and remained there. His legs were rigid, drawn up, and often started up suddenly. On admission his face was rather expressionless; speech not quite clear. Lay low in bed with legs flexed. Marked rigidity of knees and ankles. Knee-jerks exaggerated; ankle-clonus, especially right. Legs frequently jerked up involuntarily. Arms and hands weak; no rigidity. Elbow and wrist-jerks brisk. Sensation not tested. Memory fair. Five days later temperature rose; he rapidly became very prostrate and feeble. Respirations quickened, pneumonia suspected. He got rapidly worse, and died March 29th; unconscious for last 36 hours.

Post-mortem Examination.—Brain 45 ounces; much clear watery fluid in lateral ventricles, which were large and dilated. Dura slightly adherent, but not especially thickened. Central pia and vessels seemed normal. Nervous tissue flabby, not especially noteworthy as regarded structure. Pons and medulla somewhat atrophied. Atheroma with aneurysmal dilatation of basilar artery. Right lower lobe and nearly whole of left lung pneumonic. Pericardium much thickened and universally adherent (old). One coarse vegetation on mitral valve. *Vide* P.M. Book, Vol. 7, p. 390, and see ante pp. 159—161.

Presented by Dr. DONKIN.

Calcareous Formations in the Cerebral and Spinal Membranes.

1171A. A rough, nodular piece of osteophytic deposit from the falx cerebri. The mass is covered on one side with dura-mater, part of which has been stripped up that it may be the more easily seen. There were no signs of the condition during life.

Presented by Mr. SPENCER.

SERIES LVA.—DISEASES OF THE EAR.

Foreign Bodies.

1173B. A gold brooch-pin, removed from the ear of a woman who, in attempting to remove cerumen, pushed the coiled end of the pin through the membrana tympani.

Presented by Mr. BLACK.

Sequestra from the Ear.

1173C. A small sequestrum, removed from the external auditory meatus of a boy, æt. 2 years, who had suffered for a year with otorrhœa.

Presented by Mr. BLACK.

Otitis Media Suppurativa.

1173D. A piece of inspissated blood-clot, removed from the ear of a man who had suffered from offensive otorrhœa for 2 years.

Presented by Mr. BLACK.

Anchylosis of the Ossicles.

1173E. The malleus and incus taken from a skull. They are firmly anchylosed together, probably from middle ear inflammation.

Presented by Mr. YEARSLEY.

SERIES LVI.—DISEASES OF THE NOSE.

Mucous Polypi.

1175A. A large polypus, about the size of a walnut, removed by operation from the naso-pharynx. The growth has been divided, and shows a small degenerated area at the lower free end. To the pedicle is attached a second smaller flattened polypus. On microscopic examination the growth proves to be a simple myxoma, and not malignant.

History.—The growth was removed from a sailor, æt. 19, after dividing the soft palate. The tumour and the surrounding periosteum was scraped off the base of the skull with a raspatory. The palate healed perfectly, and he returned to the Royal Navy, from which he had been invalided. The growth had recurred several times after removal with the galvano-cautery.

Presented by Mr. SPENCER.

Other Nasal Tumours.

Besides mucous polypi, the nose may be the seat of other tumours, both innocent and malignant. Of the former, fibrous polypi, papillomata (1175C), enchondromata (1175B), and osteomata may be mentioned. Fibrous polypi are more common

in the naso-pharynx than in the nasal cavities; when they do occur in the latter situation they usually grow from the roof or septum. Papillomata are, according to Hopmann ("*Virchow's Archiv*," Bd. xciii., 1883), more common than is generally supposed. They may grow from the septum or (*loc. cit*) inferior turbinate bone. Enchondromata are rare, and usually spring from the cartilaginous part of the septum. Osteomata usually appear during the period of adolescence, and may be ivory or cancellous in structure.

Malignant Tumours are mostly sarcomatous in nature, and are not of frequent occurrence. They most frequently originate from the septum, but may grow from any part of the nasal cavities.

1175B. A small enchondroma the size of a pea, removed by operation from the septum nasi.

Presented by Mr. SPENCER.

1175C. A growth, removed from the septum of the nose; it is irregularly spherical, formed of closely set processes, and measures 1 inch in diameter. On miscroscopic examination it proves to be a simple papilloma.

History.—The specimen was removed with scissors from the left side of the nasal septum of a man 80 years old. It was protruding from the left nostril, and had been growing for five years, causing nasal stenosis, from which the patient sought relief. On the opposite side of the external nose was a small rodent ulcer.

Presented by Mr. DE SANTI.

SERIES LVII.—INJURIES AND DISEASES OF THE EYE.

New Growths.—Sarcoma.

1222A. The outer half of a right eye. Growing from the choroid at the posterior part of the lower and outer quadrant of the globe is a small tumour about 10 mm. in diameter. It is dark in colour, and the retina over it and far beyond it is detached.

History.—E. G. M., æt. 54, first attended the Westminster Hospital on October 7th, 1892, complaining that he had gradually lost the sight

of the right eye, and that now the left was commencing to fail. The right eye began to fail 8 months ago. No history of syphilis or other definite illness. Family history good. R.V.: perception of light only. Tension normal. L.V.: $\frac{6}{18}$, not improved. Tension normal.

Examination.—R. eye: external appearances normal. A large detachment of the retina seen ophthalmoscopically. L. eye: numerous cortical striæ visible in the lens. Removal of the blind eye was advised, and the operation was performed on October 20th.

Presented by Mr. HARTRIDGE.

Optic Neuritis.—Retinitis.

1226A. The half of a left eye. There is slight swelling of the optic disc, thickening of the choroid, tortuosity of the retinal vessels, and one large hæmorrhage towards the periphery. With the specimen are illustrations of the same eye on ophthalmoscopic and microscopic examinations.

History.—A. S., æt. 26, was an in-patient under Dr. Donkin, suffering from leukæmia, and died November 29th, 1892. Her eyes were examined on November 23rd with the following result:—

R.V. $\frac{6}{24}$ H.M. 2D = $\frac{6}{18}$, pupil 5mm. Act well, both to light and on convergence. T. normal.

L.V. $\frac{6}{24}$ H.M. 2D = $\frac{6}{18}$, pupil 5mm. Act well, both to light and on convergence. T. normal.

Ophthalmoscopic Examination.—Right eye: Media clear, disc very swollen, edges ill-defined; whole fundus very hazy, due to slight opacity of the retina. Veins very large and tortuous, about four times the size of the arteries; light reflex on the vessels very well marked; macula very distinct. General colour of fundus normal, there being an absence of that yellow tint usually described and shown in drawings of the fundus of cases of leukæmic retinitis; no hæmorrhage or white spots in the retina. Left eye: Appearances as in right.

Microscopic Examination.—No evidence whatever of inflammation either in eyeball or optic nerve. Vessels in all parts of globe gorged with leukæmic blood; papilla slightly swollen. Walls of vessels normal. Leucocytes in great numbers in the blood contained in the vessels. Great vascular distension of choroid. *Vide* W.H. Reports, Vol. 8, p. 115.

Presented by Mr. HARTRIDGE.

SERIES LX.—MALFORMATIONS AND DEFORMITIES.

A. CONGENITAL.

Transposition of the Viscera.

1284A. The thoracic and abdominal viscera of a child. The left lung has three lobes and the right two. The heart turns to the right, and its ventricles, valves, and vessels are transposed.

The liver is placed upon the left side; its right lobe is small, its left large; the gall-bladder lies to the right. The spleen is on the right side, and the pyloric end of the stomach points to the left. The cæcum lies on the left side.

History.—The specimen is from a male child, aged 8 months, who died in the Hospital on April 7th, 1894, of broncho-pneumonia. The transposition of the viscera was discovered during life. The right testicle hung lower than the left. *Vide* P.M. Book, Vol. 8, p. 250.

Defective Development of the Limbs.

1287A. Part of a foot, which has been amputated at the mid-tarsal joint, with the healed stump. The three middle toes of the former are more than double the size and length of the first and fifth; the second toe is free, but the third and fourth are joined together as far as the last phalangeal joint. Beneath the metatarsal-bones is a thick pad of fat. The stump, which was obtained *post-mortem*, shows a well-healed scar on the dorsum.

History.—The patient was seen soon after birth, and kept under observation for 6 months. The affected toes, which were of a dusky-red colour, appeared to be growing at a greater rate than those of the opposite foot, which was normal. At the amputation the pad of fat beneath the metatarsal bones was found to be very vascular. The mother stated that when she was about three months pregnant a friend unexpectedly showed her a bad foot. She refused to look at it again, but the incident remained impressed upon her mind. *Vide* Path. Soc. Trans. 1893, p. 132.

Presented by Mr. SPENCER.

1287B. A plaster cast of the foot No. 1287A before amputation.

Presented by Mr. SPENCER.

Unilateral Asymmetry.

1287C. The vertebræ, seventeen ribs, scapulæ, right clavicle, humeri, and ulnæ, the lower end of the left femur, the left patella, left tibia and fibula, the right calcaneum and astragalus, both scaphoids, and the metatarsal bone of the right big toe. The bones are from a case which showed marked unilateral asymmetry. The vertebræ are more massive on their left sides. In three places in lower half of the spine (namely, ninth and tenth dorsal, twelfth dorsal and first lumbar, fifth lumbar and sacrum) two vertebræ are found ossified together, suggesting a condition of spondylitis deformans (rheumatoid arthritis). There are exostoses and overhanging ridges of bone on the first and

fifth cervical, second, fifth, sixth, eighth, ninth, and tenth dorsal, and first lumbar vertebræ. The column was laterally curved. The ribs are markedly distorted. There is a large exostosis growing from the upper end of the left patella. The tibia and fibula are curved, the convexity being inwards, and the upper articular surface of the tibia looks upwards and outwards. The right upper and lower limbs were larger than the left.

History.—The bones were taken from the body of a single woman, aged 24, who had been an inmate of a workhouse in Wales for many years before her death. She had been confined to her bed for some time with a hypertrophic affection of both feet, in some of its characters resembling elephantiasis. Her mental power and characteristics were not known to be peculiar, and her organic functions were normally performed. She died from the effects of amputation of one of her diseased feet. At the autopsy the left hemispheres of the cerebrum and cerebellum were found to be larger than the right. The corpus striatum, optic thalamus, and corpora quadrigemina were larger on the left side, but the right olivary body was the greater. There were bony nodules over the inner surface of the dura-mater over the left hemisphere which projected into the sulci between the convolutions of the brain. *Vide* Path. Soc. Trans., Vol. 33, p. 222; also specimens 1287D, E, and F.

Presented by Mr. PEARCE GOULD.

1287D. The skull and lower jaw from the same case. The base of the skull exhibits a striking want of symmetry. The left side is larger in all its measurements. On the inner surface of the frontal bone, near the sawn edge, is a small, dense, bony tumour. The bones are distinctly thicker on the left side. There is another exostosis on the left alveolar eminence. The lower jaw is more asymmetrical than any other bone in the skull; its left half is much greater than the right, and the left condyle is enormously enlarged. Exostoses are present at the left extremity of the alveolar process, and to the left of the symphysis. The following are the measurements of the jaw:—

Length from angle to symphysis...	right	$3\frac{4}{8}$	ins.,	left	$3\frac{4}{8}$	ins.
Height of ramus	,,	$1\frac{1}{2}$	,,	,,	2	,,
Circumference of ramus	,,	2	,,	,,	3	,,

Presented by Mr. PEARCE GOULD.

1287E. The tongue and hyoid bone from the same case. The bone is asymmetrical, the left half being the larger. The tongue is larger on the left side, and the left tonsil is larger than the right.

Presented by Mr. PEARCE GOULD.

1287F. The hands from the same case. The left is very slightly the larger. In the right hand the last joint of the thumb is bent towards the forefinger, and the last joints of the third and fourth digits diverge. In the left hand the thumb is straight and the second and third digits diverge.

Presented by Mr. PEARCE GOULD.

Defective Development of the Heart.

1292A. A heart, which weighs 17 ounces. Its shape is somewhat globose. The ventricles are hypertrophied, especially the right; they are in communication by an aperture at the base of the septum ventriculorum, which just admits the tip of the index finger. The aortic ring lies just above, and is thus in communication with both ventricles. The aortic cusps are thickened and somewhat recurved, and that which lies over the septum is longer than the other two, much sacculated, and falls back into the right ventricle so that it touches against the posterior aspect of the tricuspid valve. All three cusps are covered with thick, coarse vegetations, and two are completely ulcerated through. On the pulmonary and tricuspid valves are two projections the size of small peas; both are aneurysmal ulcerations. The tricuspid flaps are short, thick, and rigid, and the chordæ shortened; the mitral valve is fairly normal; the ductus arteriosus is patent to a probe; the forame ovale is closed.

History.—A. G., æt. 17, was admitted in July, 1893, under Dr. Sturges with pericarditis, mitral systolic and presystolic and aortic systolic and diastolic bruits. Had been subject to dyspnœa and pain in left side for seven years. Had had rheumatism. She left in three weeks much relieved. On August 14th was attacked with precordial pain and tenderness. On September 20th her feet began to swell, and she vomited after food. Readmitted October 5th. Cardiac dulness much increased up to first rib, 1 inch to right of sternum, and ½ inch to left of nipple. Apex beat heaving, systolic and presystolic murmurs at apex; systolic and diastolic at base; marked systolic at bottom of sternum. Liver much enlarged and pulsating. She died November 13th. *Vide* P.M. Book, Vol. 8, p. 145.

1296A. A portion of the heart with the commencement of the aorta, which has been laid open. There are only two cusps to the aortic valve. Between the two cusps is a dense, hard nodule which is continued into the right cusps as far as its centre as a thick, flat band. There is a similar band in the left cusp. The

corpora Arantii are not distinguishable. The right valve has a small hole near the attachment of its free border on the right side, otherwise the cusps are not fenestrated. Both coronary arteries arise from the sinus of Valsalva behind the right cusp.

Presented by Dr. ALLCHIN.

1296B. A heart which weighs 10½ ounces. The right auricle is very large, and its walls thin. The tricuspid flaps are thickened, and the chordæ shortened, and lie back against the sides of the ventricle. The right auriculo-ventricular ring measures 6½ inches. From the posterior part of the ring stretches a band of endocardium to the front of the top of the auricle. It is not unlike a balloon-sail, and is fixed at both ends by long thin cords. The foramen ovale is patent but valved.

History.—The specimen is from a woman, æt. 30, who died in Hospital, January 8th, 1894, from cancer of the uterus. For two months before admission she suffered with palpitation of the heart and swelling of the feet. The heart was enlarged, apex in fourth space, ½ inch internal to nipple. Cardiac dulness to lower border of third rib, and to middle of sternum; well-marked thrill at apex; presystolic and systolic bruits. *Vide* P.M. Book, Vol. 8, p. 185.

B.—ACQUIRED DEFORMITIES.

Pigeon-breast.

Pigeon-breast is an acquired deformity due to softening of the ribs by some disease (such as rickets), whereby they become flattened or incurved from their inability to withstand the atmospheric pressure.

1308A. The sternum, costal cartilages, and sternal ends of the ribs of a child. The sternum is prominent and curved forwards to a marked degree. The ribs and their cartilages are flattened, especially the eighth and ninth. The front of the thorax is thereby narrowed in its transverse diameter and protuberant, constituting the deformity known as "pigeon-breast."

Hallux Valgus.

Hallux valgus is a dislocation of the great toe outwards at its metatarso-phalangeal articulation, whereby the toe is adducted to the middle line of the foot, crossing the other toes, and resting upon them. The condition is due to wearing badly-

fitting boots. The bursa developed over the joint is called a "bunion."

1314D. The anterior part of a right foot. The great toe is markedly adducted, so that it crosses the second. Over the metatarso-phalangeal joint the skin is thickened, and a bursa has developed. The other toes have their terminal phalanges flexed, constituting the deformity known as "hammer-toe." The specimen was obtained from a dissecting-room subject.

The Anatomy and Pathology of Amputation Stumps.

1318A. Two amputation neuromata from an amputation stump. The larger one has been laid open to show its composition, which is chiefly fibrous tissue.

History.—The specimen was taken from a man who died on July 13th, 1894, from hæmorrhage from a vessel in the pancreas. He had both legs amputated after an accident ten years before. *Vide* P.M. Book, Vol. 8, p. 307.

THE ANATOMICAL COLLECTION IN THE MUSEUM.

By P. MACLEOD YEARSLEY, F.R.C.S.,
Curator.

Now that the pathological series is fairly complete and representative, the chief attention of the Curator will be devoted to increasing the number and maintaining the efficiency of the specimens illustrating normal anatomy. Besides augmenting the numbers and remounting old (but still useful) specimens, the Curator is engaged in arranging and cataloguing the collection, and hopes in the course of the next twelve months to complete the work.

Immediately below is shown the series into which the collection has been divided, together with a list of the specimens. Those marked with an asterisk are additions.

Series.	
I.	The Blood.
II.	Epithelium and its Modifications.
III.	The Connective Tissues.
IV.	The Cartilaginous and Osseous Tissues.
V.	Muscular and Tendinous Tissues.
VI.	Nervous Tissue.
VII.	The Bones.
VIII.	The Articulations.
IX.	Muscular Attachments.
X.	The Mouth and Tongue.
XI.	The Salivary Glands.
XII.	The Organs of Deglutition.
XIII.	The Stomach.
XIV.	The Intestinal Canal.
XV.	The Liver and Gall Bladder.
XVI.	The Pancreas.
XVII.	The Organs of Absorption.
XVIII.	The Ductless Glands.
XIX.	The Heart.
XX.	The Arteries and Veins.
XXI.	The Larynx and Respiratory Organs.
XXII.	The Urinary Organs.
XXIII.	The Brain and Spinal Cord.
XXIV.	The Nerves.
XXV.	The Olfactory Organs.
XXVI.	The Eye.
XXVII.	The Ear.
XXVIII.	The Skin.
XXIX.	Male Organs of Generation.
XXX.	The Organs of Generation in the Unimpregnated Female.
XXXI.	The Organs of Generation during Pregnancy and Specimens illustrating the development of the Ovum.
XXXII.	The Mammary Glands.
XXXIII.	Models and Dissections.
XXXIV.	Variations and Abnormalities.

SERIES I.—THE BLOOD.

*1. A clot of blood, showing the "Buffy coat."
*2. Pure fibrin, obtained by whipping blood.
*3. A nearly colourless blood-clot removed from the branches of the Pulmonary Artery.

SERIES II.—EPITHELIUM AND ITS MODIFICATIONS.

5. Part of the Epithelium of a hand, removed entire by soaking in acid.
6. Part of the Pigmented Skin of a negro.
7. Tattooed Skin.
8. Tattooed Skin.

A.—*Nails.*

*12. Longitudinal section of great toe, showing nail and nail-bed.
*13. Toenail of bed-ridden person.

B.—*Hair.*

C.—*Teeth.*

17. Fœtal Jaw, showing rudimentary alveoli, with the dental sacs and the teeth *in situ.*
18. Permanent Teeth, showing their structure.
*19. Eight Teeth decalcified by maceration in acid.
*20. Teeth showing the effects of mastication.
*21. Lower Jaw showing the results of age and loss of teeth.
*22. Half a Lower Jaw, with the outer alveolar wall removed to show the teeth alveoli and dental canal.
23. Adult Upper and Lower Jaws, with a complete set of Teeth.
24. Skull of a child showing temporary and permanent Teeth.
25. A similar specimen more advanced in age.

SERIES III.—THE CONNECTIVE TISSUES.

SERIES IV.—THE CARTILAGINOUS AND OSSEOUS TISSUES.

*34. The Thyroid Cartilage (Hyaline Cartilage).
35. Half of the lower end of a Humerus, showing the articular cartilage.

*36. An Intervertebral Disc (white fibro-cartilage).
*37. Cartilage of the right pinna (yellow elastic cartilage).
*38. Rib and Costal Cartilage to show the continuity of the periosteum with the perichondrium.
*39. Part of Fibula, to show periosteum.
40. Decalcified Fibula.
41. Tibia from which the animal matter has been removed by burning.
42. Parts of a Femur similarly prepared.
*43. Sections of the upper end of a right Femur.
*44. Longitudinal section of a left Os Calcis.
*45. Vertical section of a left Scapula.
*46. Vertical section of a right Parietal Bone.
47. A longitudinal section through the foot of a young pig, to show development.
48. A longitudinal section of the left Femur of a child, to show development.
49. A longitudinal section of the leg and foot of a full term Fœtus.

SERIES V.—THE MUSCULAR AND TENDINOUS TISSUES.

*54. Part of a Biceps Muscle, showing its structure.
*55. The External Oblique muscle of a Fœtus. (Flat muscle).
*56. A Peroneus Longus Muscle. (Penniform muscle).
*57. A Flexor Longus Hallucis Muscle. (Bipenniform muscle).
*61. The insertion of Muscle into Tendon.
*64. Part of a Tendo Achillis, dissected to show its structure.

SERIES VI.—NERVOUS TISSUES.

*67. A slice of Cerebrum, showing the arrangement of white and grey matter.

SERIES VII.—THE BONES.

A.—*Complete Skeletons.*

76. Skeleton of adult English male.
77. Skeleton of adult English female.

B.—*Vertebral Column, Ribs, and Sternum.*

85. A fifth Cervical Vertebra.
86. The peculiar Cervical Vertebræ.
87. A sixth Dorsal Vertebra.
88. The peculiar Dorsal Vertebræ.
89. A second Lumbar Vertebra.
90. The peculiar Lumbar Vertebræ.
91. A Sacrum.
94. Two left Ribs from the middle of the series.
95. The first and second Ribs.
96. The tenth, eleventh, and twelfth Ribs.
*97. A Sternum.

C.—*Bones of the Cranium and Face.*

99. An Occipital bone.
100. A right Parietal bone.
101. A left Parietal bone.
102. A Frontal bone.
103. A right Temporal bone.
104. A left Temporal bone.
105. A Sphenoid bone.
106. An Ethmoid bone.
107. The Diploic veins.
109. A right Superior Maxilla.
110. A left Superior Maxilla.
111. A left Malar bone.
112. A right Malar bone.
113. The Nasal bones.
114. The Lachrymal bones.
115. The inferior Turbinated bones.
116. The Palate bones.
*117. A Vomer.
118. The Inferior Maxilla.
119. The left half of an Inferior Maxilla.
*120. A Hyoid bone.
121. The base of the Skull.
122. Half a Skull, showing the Articulations.
123. The Articulations of the Face.

C.—*Bones of the Extremities.*

126. Left Clavicle.
127. Left Clavicle.
128. Right Scapula.
129. Left Scapula.
130. Left Scapula.
131. Right Humerus.
132. Left Humerus.
133. Left Humerus.
134. Right Radius and Ulna.
135. Left Radius and Ulna.
136. Left Radius and Ulna.
*137. *138, *139, *140, *142, *143, *144. The bones of the Carpus.
*145. The Metacarpal bones.
146. A left Hand, articulated.
147. Right Os Innominatum.
148. Left Os Innominatum.
149. Left Os Innominatum.
150. Right Femur.
151. Left Femur.
152. Left Patella.
153. Right Patella.
154. Two Fibulæ.
155. Left Fibula.
156. Right Tibia.
157. Right Tibia.
158. Left Tibia.
*159, *160, *161, *162, *163, *164, *165. The bones of the Tarsus.
*166. The Metatarsal bones.
167. A left Foot, articulated.

D.—*The Ossification of Bones.*

170. The disarticulated Skeleton of a full-term fœtus.
173. The Sternum and Costal Cartilages of a full-term fœtus.
178. The right Scapula and Clavicle of a full-term fœtus.
186. The Pelvis of a full-term fœtus.

SERIES VIII.—THE ARTICULATIONS.

A.—Articulations of the Head and Trunk.

I.—*The Vertebral Column.*

200. Three Lumbar Vertebræ with the intervertebral discs.
201. Two Lumbar Vertebræ with intervertebral disc bisected.
202. The Anterior Common Ligament.
203. The Posterior Common Ligament.
204. Specimen, showing the ligamenta subflava, supraspinous, intraspinous and capsular ligaments of the Vertebræ.
205. The ligaments of the Dorsal Vertebræ.
206. Occipito-atloid and atlanto-axoid ligaments.
207. The Odontoid ligaments.
208. The Occipito-atloid and atlanto-axoid ligaments.
209. An antero-posterior section of the Occipito-atloid and atlanto-axoid joints.

II.—*The Thorax.*

213. The chondro-sternal, costo-chondral, and sterno-clavicular ligaments.
214. A similar specimen.

III.—*The Head.*

218. The left Temporo-maxillary articulation.
219. The right Temporo-maxillary articulation, opened to display the interarticular fibro-cartilage.
220. A similar specimen.

B.—*Articulations of the Upper Limb.*

221. The Shoulder-joint.
222. The Shoulder-joint, acromio-clavicular, coraco-clavicular, and suprascapular ligaments.
223. The right Shoulder, with models of the muscles and bursæ connected with it.
224. The right Elbow-joint.
224A. The right Elbow-joint laid open.
225. A right Elbow-joint.
226. A longitudinal antero-posterior section through a left Elbow-joint.

227. The Orbicular ligament.
228. A left Hand, showing the articulations.
229. A transverse longitudinal section through a right Carpus, showing its synovial cavities.
230. A fourth Finger, with its metacarpal bone, showing its ligaments.

C.—*The Articulations of the Pelvis.*

232. A vertical saggital section of the lower four Lumbar Vertebræ and the Sacrum.
233. The Symphysis Pubis.
234. A coronal section of a Symphysis Pubis.

D.—*The Articulations of the Lower Limb.*

235. A right Hip-joint.
236. The Ligamentum teres.
237. A right Knee-joint.
238. A right Knee-joint laid open.
239. A right Knee-joint laid open, showing the ligamenta alaria et mucosa.
240. A left Knee-joint laid open.
241. The Condyles of the femur and tibia and the semilunar cartilages.
242. A vertical section through a left Knee-joint.
243. A vertical section through the right Knee-joint of a child.
244. The Præpatellar bursa.
245. The Articulations of the right foot and ankle.
246. A left Foot, showing its synovial membranes.

SERIES IX.—THE MUSCULAR ATTACHMENTS.

A.—*The Head and Face.*

*252. The right half of an Inferior Maxilla, with the muscles attached to it.

B.—*The Thorax.*

C.—*The Upper Limb.*

*263. A left Scapula, with the muscles attached.
*264. A right Clavicle, with the muscles attached.

268. The Tendons of the flexores sublimis and profundus in their sheaths.
269. The Attachment of the flexores sublimis and profundus tendons.

D.—*The Pelvis.*

E.—*The Lower Limb.*

SERIES X.—THE MOUTH AND TONGUE.

*284. The distribution of the Papillæ on the tongue.
287. The Nerves of the tongue.

SERIES XI.—THE SALIVARY GLANDS.

293. The Ducts of Wharton.
294. The Parotid and Submaxillary Glands dissected.

SERIES XII.—THE ORGANS OF DEGLUTITION.

299. The Pharynx laid open from behind.

SERIES XIII.—THE STOMACH.

308. Injected Stomach of a full-term fœtus.
311. The Pylorus.
312. A longitudinal section of the Pylorus.

SERIES XIV.—THE INTESTINAL CANAL.

A.—*Small Intestine.*

317. A portion of Small Intestine, dried after the inflation of its cellular tissue.
318. The Duodenum, showing the common bile duct and pancreatic duct.
319. Part of the Jejunum.
320. Part of the Jejunum injected.
321. Part of the Ileum.

B.—*Large Intestine.*

324. The Cæcum, displaying the ileo-cæcal valve.
327. Part of the Colon laid open.
328. Part of the Colon.
329. Part of the Rectum laid open to show the folds of Houston.

SERIES XV.—THE LIVER AND GALL-BLADDER.

*333. Plaster Cast of an adult liver.
*334. Part of the Inferior Vena Cava, showing the entrance of the hepatic veins into it.
*335. Piece of Liver, showing the "portal canals."
*337. A Gall-bladder laid open.

SERIES XVI.—THE PANCREAS.

343. A Pancreas dissected.
344. The Duct of the pancreas dissected.

SERIES XVII.—THE ORGANS OF ABSORPTION.

349. Small Intestine, with the absorbent vessels injected with mercury.
350. A piece of Liver—the lymphatics have been injected with mercury.

SERIES XVIII.—THE DUCTLESS GLANDS.

358. The Spleen.
*360. The Thyroid Gland.
361. A Larynx and Trachea, with the thyroid gland in position.
*362. A Thymus Gland unravelled.
363. The Tongue, Soft Palate, Larynx, Trachea, Heart, and Great Vessels, with the thyroid and thymus glands in position.

THE GUTHRIE SOCIETY.
1893-94.

It is somewhat difficult to retrospect the advances of the past year, for they have been many. Various suggestions have been before the Committee—from slight alterations in the rules to complete change in the constitution. It has been suggested that we should become entirely a Clinical Society, a Students' Association for the holding of Smoking Concerts, or a Debating Society. The Committee, although encouraging advance in all these directions, has exercised wisdom by a due recognition of the policy of conservatism.

The time of the meetings has been changed from 8.0 to 8.30 p.m., and they are now held in the Board Room of the Hospital. Endeavours have been made to attract some of the sixty Life Members who have left the Hospital for possibly larger spheres of labour by holding clinical evenings, but with as yet no marked result.

There are but few members of the Staff who have not availed themselves at some time during the year of their privileges as members, some of them occasionally turning up half-an-hour before the time of the meetings.

Under the patronage of the Society a Newspaper Club has been formed. This is a new departure, and the Committee hopes for its success; its predecessor failed apparently from want of the help of a responsible committee. If this Club be supported by all the Students it cannot fail in some way to replace the want felt by the sudden abolition of the Students' Club by the School of Medicine Committee.

Considerable alterations have been made in the laws, the appointment of a Guthrie Lecturer being perhaps the most important. This was suggested by Dr. Tims and met with some opposition, but was carried in Committee by a considerable majority, and *nem. con.* by an Extraordinary Meeting of the Society convened to consider the laws. At the latter meeting the subscription was raised to a guinea for Life Members. The financial condition of the Society is in a highly satisfactory condition—though five pounds have been expended in repairing the microscope and in the purchase of two new objectives.

This is due to the zealous work of the late Hon. Treasurer, Mr. H. H. Mills.

Much of the success of the year has been due to the sustained personal interest shown in the Society by our genial President, Dr. Donkin, who has only once been unable, and that through illness, to take the chair at the Committee and ordinary meetings throughout the year. The Committee owe much to his help and guidance.

If I may trespass on my position as a "chronic" I would say to senior men: try and make the meetings sociable, first to those who come back to their Alma-Mater drawn perhaps by "the silver cords of love" on these occasions, and then to the Students of the first and second years. Make them feel welcome; sit by them; offer them cigars; enquire tenderly where they spent the Vacation, remembering the while that the Society does not exist entirely for its social possibilities.

That papers read before the Society should *not* be only from the erudite, or the University student, papers which few of us can understand, and still fewer criticise, or from members of the Staff, whom we can hear whenever we choose, is much to be desired. That the ordinary student should endeavour to lay before the house some new theory about his hobby which can be discussed is surely more our aim.

It is painfully difficult for some men to get on their legs for the first time, as a few of us have discovered. That "the public speaker gains fluency and power almost on a sudden so soon as he is assured of public favour" has been said by our first President; and how can man learn better what it is to be appreciated than by the applause of his fellow students? What could better put a man into the atmosphere of success which is so necessary in speaking? "for success and failure starting from the same level soon create an atmosphere of their own, and each maintains its place in virtue of its surroundings."

On many occasions facility in public speaking will prove useful to a member of our profession, and for this facility practice is necessary, such as that for which the Guthrie Society affords opportunity.

Let those of us who are overflowing with original ideas avail ourselves of fortune's help to imbue others with them, not fearing criticism.

This has been the first year of starting a programme prepared at one of the Committee Meetings, at the suggestion of Mr. A. T. White. The Committee is well satisfied by the result. It was carried out in detail, with one or two notable failures, which were quite eclipsed by the noble conduct of certain gentlemen—not Students, be it said to our shame—who stepped into the breach, Drs. Mercier, Gossage, and Tims.

The meetings started in October with the usual preliminary canter of a Smoking Concert, which was attended by sixty members and visitors.

This was followed by a Clinical evening in December, which was the first meeting held by kind permission of the House Committee of the Hospital in the Board Room. We may well congratulate ourselves on the result—the Board Room and Secretary's Room were crowded, and many interesting cases shown. Our thanks are due to the Matron and Sisters of the Hospital for their courtesy in lending screens and couches, and providing refreshments for the patients.

An exhibition of microscopical specimens was held in March, and another Clinical evening in the summer.

Papers have been read as follows:—

My Experiences as a Railway Surgeon. By Mr. Bond.

The Medical Knowledge of the Ancient Egyptians in the Alexandrian Period. By Mr. Yearsley.

Mr. and Mrs. John Bull on Disease—its Causes, Symptoms, and Treatment. By Mr. Winckworth.

The Theory of Recapitulation. By Mr. Sherlock.

Some Points in Favour of Organic Evolution. By Dr. Tims.

Old London Bridge. By Dr. Mercier.

There have been debates upon:—

Preliminary Education for the Medical Profession.

The Habitual Use of Tobacco.

Microscopical specimens have been exhibited by:—

Drs. Hebb and Tims, and Messrs. Spencer, White and Copeland.

Instruments have been exhibited by Messrs. Wright and Co.

The following cases have been shown:—

Congenital defect of Forearms. By Dr. Hebb.

Colloid miluim or hydradenoma.

Xanthoma diabeticorum.

Diffuse symmetrical scleroderma.
Case of sewer gas poisoning. By Dr. Tims.
Transposition of viscera. By Mr. Spencer.
Congenital double dislocation of femora. By Mr. Powell.
Fibroma of ovary. By Mr. Yearsley.
Osteitis deformans.
Syphilitic eruptions.
Epithelioma of the leg.
Papilloma of nose. By Mr. De Santi.
Bronchiectasis, with chronic pneumonia.
Left hemichorea in man aged 25. By Mr. Bailey.
Paralysis agitans.
Disseminated sclerosis.
Lateral sclerosis.
Tabes dorsalis.
General paralysis of the insane. By Mr. Winckworth.
Coloboma of choroid and iris.
Thrombosis of retinal vein. By Mr. Witham.
Idiopathic anæmia. By Mr. E. Macnamara.
Spastic paraplegia.
Heart disease. By Mr. White.
Idiopathic anæmia. By Mr. Genge.
Diaphragmatic paralysis. By Mr. Clay.

The attendances have averaged 38 at each meeting. Twenty-eight new members have been admitted.

OFFICERS 1894-95.

President—MR. THOMAS BOND, B.S., F.R.C.S.
Vice-President—MR. H. H. MILLS, M.R.C.S., L.R.C.P.
Hon. Treasurer—MR. J. G. SWAINSON.
Hon. Secretary—MR. G. L. PARSONS.

Committee.

MR. W. H. GOSSAGE, M.R.C.S., L.R.C.P.
MR. ERIC MACNAMARA, B.A.
MR. F. K. WILSON.
MR. JOSEPH NELSON, L.R.C.S., L.R.C.P. Ed.
MR. A. T. WHITE.

Hon. Librarian—MR. J. G. SCOTT.

F. KENNETH WILSON,
Hon. Secretary.

THE WESTMINSTER HOSPITAL UNITED SPORTS CLUB.

THE Athletic Club Notes which appeared in the last volume of the Hospital Reports dealt with the new scheme, under which the various sports clubs had recently been amalgamated in their management, and under the above title placed under the control of a general committee composed both of members of the Staff and Students. This scheme has now been working for over twelve months, and the results hitherto obtained have been such as to fully justify the alteration, and prove the correctness of the views of those who advocated its adoption on the grounds that it would materially tend to improve the general efficiency and financial condition of the clubs.

I notice that Mr. W. B. Winckworth, the writer of last year's article, mentioned that the three great obstacles with which the clubs had to contend in the past were "want of numbers, want of money, and want of support." It was not expected that any change in management would do away with the first of these difficulties—at least not all at once—but up to the present I am happy to be able to state that the other two wants have been supplied, in fact have disappeared almost entirely. To take them in reverse order, the want of support—by which was implied a lack of interest taken in the affairs of the clubs by those who did not actually take active part in the various sports—is no longer the same cause of complaint as formerly. The Staff of the Hospital and Medical School have set a praiseworthy example to the Students, not only by the interest they display in the affairs of the Club—as evinced by their willingness to act on committees and their presence at the athletic sports meetings, &c.—but also by the very generous manner in which they have supplemented what may be styled their theoretical interest by very practical help in the way of subscriptions and donations to the Club. Spurred on, no doubt, by a worthy spirit of emulation,

the Students have exhibited a much greater feeling of *esprit de corps* than in former years, and those who are not themselves athletes show their interest in and desire for the welfare of the Club by paying up their subscriptions like "men and brothers." As a result of this increased support the second obstacle has, up to the present at any rate, been removed; and the want of money is no longer the same bug-bear of the Treasurer as in the past. Under the treasurership of Mr. Charles Stonham, ably seconded by the various club secretaries in his desire to keep the expenditure within proper limits, the clubs have not only been able to carry on their work without fear of getting into debt, but a handsome balance remained over at the end of the year to be carried forward to next year's accounts. This is a very satisfactory condition of things, for though money may be the root of *some* evil, it is also the root, branch, and stem of much good. And we hope that by not merely maintaining, but considerably increasing, this balance we may after a short time be able to carry on operations on a more extended scale, and add other new clubs to those already in existence.

So far so good. But the first want has not yet been quite wiped out—it may have been scotched, but not killed. The want of numbers is still about the chief difficulty we have to contend with. In this respect we are, of course, at a great disadvantage compared with other Hospitals, whose large numbers enable them always to have teams ready to put into the field. This want will doubtless remain until the actual number of Students in connection with the Hospital increases considerably; and one of the fundamental points of argument on which the advocates of the amalgamation scheme based their reasons for the change was that the existence of good sport clubs forms a large factor in attracting intending students to any particular school, and we are still confident that this opinion is a correct one, and look forward hopefully to the time when we can offer to such men attractions in the way of sport and athletics quite as much on a par with those afforded by other Hospitals, as are the many professional and other advantages which they already enjoy. And here I may remark, *en passant*, that the entry at the School for this year is the largest we have had for a considerable time, which I trust will prove of as much benefit to the Sports Club as to the School itself.

The Football (Rugby) Club had a very good season during the winter of 1893-94, although the old difficulty of always having a full fifteen in the field sometimes cropped up. But the untiring efforts of the Captain, Mr. D. G. Kennard, and the Secretary, Mr. C. Farrant, succeeded in keeping the men together, and even when shorthanded (if I may use such an expression in reference to a *football* team), as happened once or twice, we were able to give our adversaries a good afternoon's play. Only three matches were lost throughout the entire season, and these losses were sustained against clubs much stronger than our own, both numerically and otherwise. Owing to an error on the part of someone—most probably not on our own side—we were not entered for the Inter-Hospital Challenge Cup; but we hope that next year we shall be in the field with a team which will justify us in measuring our strength against that of the other Hospitals, and that not without some reasonable prospect of success.

An Association team has not yet been started, as it is felt that to do so with our present number of playing members would probably result only in the formation of two very weak teams instead of one fairly strong one. If the roll of active members increases, as we hope it will, there is no reason why we should not then have two good teams; and it is possible we may have an Association Club by next year, as there are already a number of men very anxious for its establishment.

The season of 1894 was a good one for the Cricket Club as far as the sport itself was concerned, but whether it was that the clubs against whom we played were stronger than usual, or that our own team was not up to its wonted form, the actual number of matches won was less than in past years. Nevertheless the team played well, and one must not gauge its efficiency merely from the number of matches won and lost. Mr. D. G. Kennard captained his men in good style all through the season, and also came out once again at the head of the batting averages. Mr. W. Walker was at the head of the bowling analysis with an average of only 8·7 runs to each wicket, being run very close for the honours by Mr. E. Fleming with an average of 9. Mr. A. E. Jerman acted as an efficient Secretary. Next year we trust to have better success in our matches. The team feels the drawback of having no ground

on which to practise regularly; but if the affairs of the Club continue to prosper we may also be able to do something in that direction. In the Inter-Hospital Cricket Cup Competition we were unlucky enough to be drawn against such formidable opponents as Thomas's, but better fortune may attend us on future occasions.

The Athletic Club Meeting, which was held in June at the Stamford Bridge Ground, proved quite as successful as in former years. Under the management of Mr. J. R. Long as Secretary an excellent programme of events was arranged, producing a very enjoyable afternoon's entertainment. Although no records were established—which seems to be the sole aim and object of many athletic meetings—the form displayed in the various items was good, and the prizes awarded to fortunate competitors were fairly earned. The 2-mile bicycle race was an event of considerable interest, as there had not been a similar race for some years previously. There was an excellent attendance at the meeting, not only of Students, but also of members of the Staff and other visitors, not a small proportion of whom were members of the fair sex. As, compared with the other clubs, the Athletic Club is comparatively young and of recent formation, it is gratifying to find it so well supported, and giving such good promise of flourishing for years to come.

During the summer the experiment of a Swimming Club has been tried, but as it was formed rather late it has not yet been formally admitted into the United Sports Club. I am happy to be able to state, however, that since I undertook, and even commenced, to write this article a swimming match took place at St. George's Baths between representative teams from several of the Hospitals, in which contest the Westminster team succeeded in capturing all the honours. The starting and working of this club is largely due to the efforts of Mr. G. Dudley, who is well known as one the best amateur swimmers of the day. By next summer it is hoped that the club will be in full swing; and as there are a number of excellent aquatic performers amongst our Students we trust to be well to the front in the Inter-Hospital Swimming Competition and other water sports.

But space warns me that I must not be too prolix. It only

remains for me to mention that at the conclusion of their year of office Dr. Fox, Dr. Donkin, and Mr. C. Stonham were unanimously re-elected to their positions as President, Vice-President, and Treasurer, respectively; Mr. C. E. McLeod being also chosen Vice-President and Mr. J. F. Baxter Secretary, in place of Messrs. W. B. Winckworth and J. Nelson, resigned.

In conclusion I may venture to reiterate what I have said before—that the past year has proved the advantage to be gained by amalgamated management of the clubs, backed up by an increased amount of interest and energy on the part of the members themselves; and the present position of the United Sports Club justifies us in hoping for still better things, when we shall have more clubs, more members, more money, and more success all the way round. If the members will only work hand-in-hand with one another for the common interest of the Club, such a desirable state of things would soon be brought about, and the Westminster Hospital Sports Club would take its proper rank amongst the athletic institutions of the Metropolis. The day seems to be dawning; let us hope we shall soon be basking in the full sunshine of success.

JOSEPH NELSON,

Late Secretary of the Club.

SOME INFORMATION RESPECTING THE WESTMINSTER HOSPITAL AND ITS MEDICAL SCHOOL.

THIS Hospital owes its origin to a Meeting which was held at St. Dunstan's Coffee House, on the 14th January, 1715, and first opened its doors at a small house in Birdcage Walk, under the name of the "Publick Infirmary for the Sick and Needy." At this time the only Hospitals which existed for the medical and surgical relief of the sick poor were St. Bartholomew's and St. Thomas's, which were both established and carried on by the religious houses of their respective neighbourhoods, and created Royal Hospitals soon after the suppression of the monasteries in 1537.

Westminster Hospital is remarkable as being the first in London which was founded by the voluntary contributions of the public. Guy's Hospital, founded by the munificence of one individual, was not established until a few years later. After nearly five years' work in Birdcage Walk, as an institution for the administration of relief, the Hospital with an entrance from Petty France, was opened for the reception of thirty In-patients. So rapidly did its usefulness develope that in 1724, having been in existence for little more than nine years, it opened its wards in Chapel Street with sixty beds. At this time Cheselden, the teacher of John Hunter, became one of its Surgeons, a post which he held for fifteen years. Another nine years passed, and in 1733 the Hospital was removed to a still larger building in James Street, where it remained for 101 years. This removal, however, did not take place without a strong protest on the part of a large body of the Governors, who preferred a house near Hyde Park Corner, called Lanesborough House, to which they finally seceded with a portion of the staff, and established the present St. George's Hospital.

In 1834 the patients were removed into the present building, and a Medical School was established in Westminster in the same year; but it was not until 1849 that the School became connected with the Hospital.

In 1884 a site containing 5,900 square feet was purchased in Caxton Street, close to the Westminster Town Hall, and in October of the same year the Governors of the Hospital accepted a contract for £8,168 for the erection of School Buildings, from plans drawn up by Mr. Stephen Salter, F.R.I.B.A. The foundation-stone was laid by His Grace the Duke of Westminster on February 28th, 1885, and the building was opened on October 1st in the same year.

The recent extensive alterations and improvements, including a Chapel and an extensive Out-patient Department, have largely added to the resources and efficiency of the Hospital, which at present contains upwards of 200 beds, including accommodation for special classes of disease. The old Chapel has been converted into a Ward for Children.

There are separate departments for diseases of the Eye, of the Ear, of the Skin, of the Teeth, of the Throat, for those peculiar to Women, and for Orthopædic practice.

Communications respecting the Medical School should be addressed to the Dean, Medical School, Caxton Street, S.W., from whom all particulars may be obtained on application, either personally or by letter. Information may also be obtained at any time from the Secretary of the Medical School, from the Secretary at the Hospital, or from any of the Lecturers.

DEAN'S REPORT.

THE Winter Session of 1893-94 was opened with an Introductory Lecture by Dr. Hebb. The chair was taken and the Prizes distributed by the Rev. Alfred Jones.

The following appointments and changes have occurred during the past year:—

Dr. Sturges, Treasurer, *vice* Mr. Cowell.

Dr. de Havilland Hall, Joint Lecturer on Medicine, *vice* Dr. Allchin, resigned after 10½ years of lecturing on this subject.

Mr. Bond, Surgeon to the Hospital, *vice* Mr. Davy, who retired after 23 years' service.

Dr. Wills, Assistant Physician and Lecturer on Elementary Medicine, *vice* Dr. Hughes Bennett.

Dr. Pollock, Assistant Obstetric Physician and Joint Lecturer on Forensic Medicine, *vice* Dr. Grigg.

Mr. Glassington and Mr. Gardner, Dental Surgeons, *vice* Mr. Lloyd Williams and Mr. Dolamore.

Mr. Yearsley, Curator of the Museum, *vice* Mr. Stonham.

Dr. Gossage, Medical Registrar, *vice* Dr. Wills.

Mr. de Santi, Surgical Registrar, *vice* Mr. Powell.

Dr. Tims, Joint Demonstrator of Anatomy, *vice* Mr. de Santi.

Dr. Blaxall has been appointed Lecturer on Bacteriology, and has been placed in charge of the Bacteriological Laboratory.

With the money placed at their disposal by Mr. Fish, the School of Medicine Committee have been able to make additions, especially of models, to the Anatomical Department of the Museum, also to the Physiological and Chemical Laboratories, and have fitted up a new Bacteriological Laboratory. Further, the electric light has been installed in the Library, Reading Room, and Smoking Room.

FEES.

THE fees for students are £115 in one sum at entrance, or £120 in two payments or £132 in six payments. Entries may be made separately to lectures or to hospital practice, and special arrangements are made for students entering subsequently to the first year; also for dental students and for qualified practitioners.

All fees are payable in advance to Mr. Quennell at the Secretary's Office in the Hospital.

SCHOLARSHIPS AND PRIZES.

I.—**An Entrance Scholarship**—which is designated the "Guthrie"—of the value of Sixty Pounds.

II.—**An Entrance Scholarship** of the value of Forty Pounds.

III.—**An Entrance Scholarship,** of the value of Twenty Pounds.

IV.—**A Free Presentation,** open to Pupils of the Epsom Medical College.

V.—**An Oxford and Cambridge Scholarship,** of the value of Forty Pounds.

VI.—**A Natural Science Entrance Scholarship,** of the value of Sixty Pounds.

VII.—**An Entrance Scholarship—The "Governors"**—of the value of Forty Pounds.

VIII.—**The Treasurers' Prize,** an Exhibition, of the value of Ten Guineas, for general proficiency in Anatomy, Physiology or Biology, and Chemistry.

IX.—**The President's Prize,** of the value of Twenty Guineas, a Scholarship in Anatomy, Physiology and Histology.

X. and XI.—**Two Prizes,** one in Clinical Medicine and one in Clinical Surgery, value five pounds each, in Books or Instruments.

XII.—**The Frederick Bird Medal and Prize,** of the value of Fourteen Pounds, will be offered for competition to

Students who have completed their Fourth Winter Session at the Westminster Hospital School of Medicine.

XIII.—**The Chadwick Prize.**—This Prize, of the value of Twenty Guineas in Books or Instruments, is offered for competition at the end of each Winter Session.

XIV.—In most of the Classes (Histology, Midwifery, Medicine, Surgery, &c.), special Prizes, value from One to Two Guineas each, are given.

MUSEUMS.

One of the special features of the new School is the Museum. It is large, quiet, and very light, and affords an agreeable place for study. It is surrounded by a gallery, one side of which is occupied by the Materia Medica collection, and the rest by part of the Pathological specimens.

The Anatomical portion of the Museum has recently been much enlarged and improved, and contains dissected Preparations of all the principal tissues and organs of the Body, and a series of Models in Wax, which are used to illustrate the Anatomical and Physiological Lectures, and the Student's reading.

The Pathological Museum is furnished with Specimens illustrating all the principal Morbid Conditions of the Body, and the Injuries to which it is liable. A collection of casts give the external appearances presented by the specimens prior to dissection. Constant additions are being made to this department by the selection of Pathological specimens from the Post-mortem Room. A descriptive catalogue of the Pathological Specimens prepared by Mr. C. Stonham can be obtained of the Secretary of the School, price five shillings.

Valuable collections of Obstetric preparations and specimens of Comparative Anatomy are used to illustrate the lectures on those subjects.

The Materia Medica Museum contains a complete collection of the Drugs and Chemicals of the British Pharmacopœia in addition to many others, some of which are of considerable rarity. There is also a duplicate set of Drugs and Chemicals for the use of Students preparing for Examination, together with a large collection of Botanical Specimens.

LIBRARY.

THE Library is open daily from 10 to 5 (Saturday 10 to 2) *for purposes of study*, and a Librarian is in attendance, to supply the Books for perusal, and to maintain order.

It is under the management of a Committee, appointed by the School of Medicine Committee, consisting of the Dean and two Lecturers, and two Students who have completed not less than two years of study at the Westminster Hospital School of Medicine, nominated by the Students.

The Entrance Fee of One Guinea is included in the general fees. Students who have entered for one or two Sessions may secure the same privileges by paying a fee of half-a-guinea.

GUTHRIE SOCIETY.

MEETINGS of this Society for Debates, the reading and discussion of papers of Professional and General interest, the exhibition of Physiological and Pathological specimens, &c., are held on the second Thursday of each month, at 8.30, in the Board Room at the Hospital.

At least two Clinical evenings are held each year.

Members have the use of the microscopes and specimens belonging to the Society.

The Society subscribes to Lewis' Library for 23 Volumes for the use of Members.

Subscription, Life Members, 15*s.* in one payment on entrance, or four consecutive annual payments of 5*s.*

UNITED SPORTS CLUB.

THIS Club—consisting of the Athletic, Football, and Cricket Clubs, united in their management, and governed by a Committee consisting of Members of the School or Hospital Staff as well as Students—which was founded under its present conditions in 1893, is open to all Students of the School and Hospital.

The Entrance Fee, entitling a Student to Membership during his entire curriculum, is £2 2*s*.; and all new Students are strongly recommended to become Members at time of entering.

A Swimming Club is now being formed, in addition to those above mentioned, the subscription to which is included in the general entrance fee.

RESTAURANT.

There is a restaurant attached to the School, which is open daily for the convenience of Students.

HOSPITAL STAFF.

Consulting Surgical Staff.

MR. HOLTHOUSE. MR. RICHARD DAVY.

Medical In-patient Staff.

DR. ALLCHIN. DR. DONKIN. DR. DE HAVILLAND HALL.

Surgical In-patient Staff.

MR. COWELL. MR. MACNAMARA. MR. T. BOND.

Medical Out-patient Staff.

DR. MURRELL. DR. HEBB. DR. WILLS.

Surgical Out-patient Staff.

MR. T. COOKE. MR. STONHAM. MR. SPENCER. MR. TUBBY.

Obstetric Physician—DR. POTTER.

Assistant Obstetric Physician—DR. W. RIVERS POLLOCK.

Physician for Diseases of the Skin—DR. COLCOTT FOX.

Aural Surgeon—MR. JAMES BLACK.

Consulting Dental Surgeon—DR. WALKER.

Dental Surgeons—MR. GLASSINGTON. MR. GARDNER.

Surgeons in charge of the Ophthalmic Department.

MR. COWELL. MR. HARTRIDGE.

Surgeon in charge of the Throat Department—MR. SPENCER.

Administrator of Anæsthetics—DR. BOURNS.

Pathologist—DR. HEBB.

Curator—MR. YEARSLEY.

Medical Registrar—DR. GOSSAGE.

Surgical Registrar—MR. DE SANTI.

Secretary—MR. S. M. QUENNELL.

LECTURERS.

Clinical Medicine—DR. ALLCHIN, DR. DONKIN, DR. DE HAVILLAND HALL.

Clinical Surgery—MR. COWELL, MR. MACNAMARA, MR. BOND.

Clinical Gynæcology—DR. POTTER.

Medicine—DR. DONKIN and DR. DE HAVILLAND HALL.

Diseases of the Skin—DR. COLCOTT FOX.

Diseases of the Throat and Nose—DR. DE HAVILLAND HALL.

Neurology and Insanity—DR. CHARLES MERCIER.

Elementary Practical Medicine—DR. WILLS.

Surgery—MR. STONHAM.

Ophthalmic Surgery—MR. HARTRIDGE.

Aural Surgery—MR. JAMES BLACK.

Dental Surgery—MR. GLASSINGTON.

Anæsthetics—DR. BOURNS.

Practical and Operative Surgery—MR. STONHAM.

Minor Surgery—MR. TUBBY.

Midwifery and Diseases of Women—DR. POTTER.

General Pathology and Morbid Anatomy—DR. HEBB.

Post-Mortem Demonstrations—DR. HEBB.

Demonstrator of Surgical Pathology—MR. YEARSLEY.

Materia Medica, Therapeutics, and Pharmacology—DR. MURRELL.

Demonstrator of Practical Pharmacy—MR. A. E. TANNER.

Forensic Medicine—MR. T. BOND and DR. POLLOCK.

Toxicology—DR. A. DUPRÉ.

Public Health—DR. S. MONCKTON COPEMAN.

Bacteriology—DR. BLAXALL.

Anatomy—MR. BLACK.

Practical Anatomy, Demonstrators—MR. BLACK and DR. MARETT TIMS.

Assistant Demonstrators—MR. YEARSLEY and MR. G. B. JAMES.

Physiology, Practical Physiology, and Histology—MR. SPENCER.

Biology—DR. MARETT TIMS.

Comparative Anatomy—DR. MARETT TIMS.

Chemistry—DR. A. DUPRÉ and DR. H. W. HAKE.

Practical Chemistry—DR. H. WILSON HAKE.

Lecturer of Physics—MR. H. SOMERVILLE.

Treasurer of the School—DR. POTTER.

Dean of the School—MR. SPENCER.

Secretary and Librarian—MR. J. A. BARTLETT.

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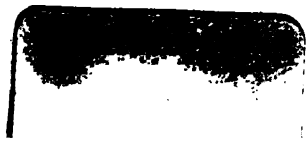
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